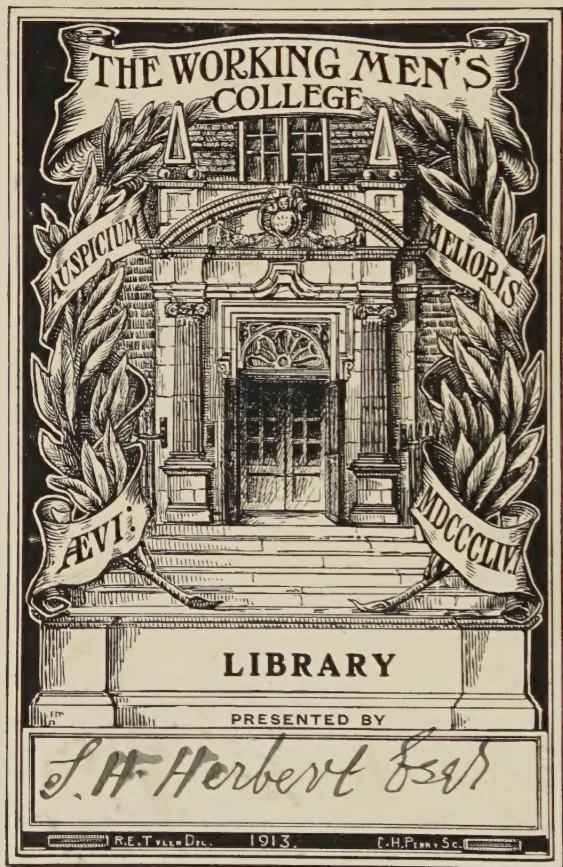


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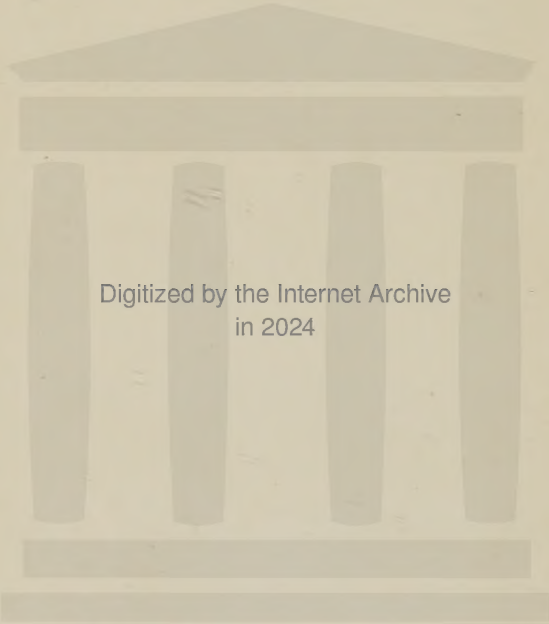
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THE GROWTH OF NATIONS

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By
W. ROSE SMITH



LONDON
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INTRODUCTION

THE capacity of a country to carry population is evidently not a fixed quantity, defined by nature ; the history of every nation in the world shows fluctuations of the density of the population, and variations in the rate of increase or decrease, which can only be explained by the examination of the phases of civilization which affect population capacity, and the investigation of actual rates of increase during definite periods for which the economic factors of legislation and progress in public works and industries are known. The growth of a nation depends upon these economic factors, which are equally perceptible and measurable with the variations of population. Public works can only be undertaken by some organized governing body, whether this organization consists of a strong federal or central government of the whole nation, or is split up into numerous weaker corporations, of State, Municipality, County Council, Parish, Vestry, or Company. Government implies statesmanship, and the most important factor in the well-being and progress of a nation is the wise regulation of hygienic works, communications, customs, and taxation or financial administration, by the legislative and administrative functions of government.

In the investigation of the population capacity of countries the effects of the facilities of access to markets

are kept mainly in view, as free access to markets is the result both of the wise regulation of customs and the extension of public works of communication and transit of goods. No greater stimulus can be given to productive industries than free access to markets, but in the regulation of customs and the incidence of taxation the Government can without doubt give an important stimulus to industries by protective duties, inspection and guarantee of quality, information, and diplomacy. Protective duties, wisely applied, have shown a creative as well as an extending effect upon industries in protected countries ; as, for example, in the rise of the tin-plate industry of America, which tends to lower the cost of production, as well as to increase the population capacity of the country. The population capacity is the direct result of the productive capacity of the country, and as against the dogma of so-called " free trade " the whole experience of humanity goes to prove that Protection, opportunity of access to the means of production, easy access to markets, and organization of labour and capital, are the essentials of national progress.

Protection, in the corn laws, without the opportunity of access to the means of production by breaking up the huge estates of the landed aristocracy, in the beginning of last century, put up the price of bread in England, and gave rise to the dogma of " free trade." With freedom of access to the land, however, the corn laws would have stimulated agricultural industry, to the introduction of closer settlement and intensified cultivation, producing four or five times the quantity of grain and vegetables, and lowering prices ; while the manufacturing industries would have been stimulated by agricultural demand, and the population capacity of

the whole country would have increased at a rate making emigration unnecessary, at least to the foreign regions of the United States.

The influence of ethical principles upon population, either as regards increase or decrease or material welfare, is indirect and immensurable. Superstition developed by religious error often has an adverse influence upon the progress of a country and the increase of population. The diversion of labour and capital from public works to ecclesiastical buildings, tombs, and other purposes in connexion with religion, has a decidedly adverse influence upon the progressive capacity of a country. According to Buckle, the influence of religious superstition upon the character of the people has the most adverse effect upon national progress. The lowering of the ideal relations of the sexes, with the degradation of moral principles by the ecclesiastical dogmas of celibate virtue, the sinfulness of man, and the necessity of arbitrary punishment, implanted upon primitive Christianity by the early Roman Church, have been the sources of untold misery to humanity, and are responsible for great waste of human life. But these ethical factors have not directly affected the capacity of European countries to carry people, rather keeping the population low enough in morale and numbers to suit the degraded state of law, industries, and public works engendered by the ignorance of physical science and the superstition of rulers and people.

Access to opportunity, whether land, minerals, or capital, for the whole of the people is naturally coming within the realm of practical politics with the higher developments of civilization in densely peopled countries. Slavery has never peopled a country over a density of

100 persons on the square mile. The commercial system of wage-earning has brought up the population capacity of rural districts somewhat higher ; and of cities, for which this system has proved convenient, to 30,000 or 40,000 persons to the square mile. But the rise of the limited liability company and the Trust has shown that individualism is not essential to commercial or industrial success, and with freedom of access to opportunity co-operation in industries and trade may yet develop a higher civilization and greater population capacity than has so far been witnessed even in Belgium or Lancashire.

Access to markets is acknowledged by Adam Smith and the more modern writers on economics to be the greatest stimulus to production. The admission of this principle absolutely prohibits the imposition of export duties on produce, and imposes upon every civilized government the undertaking of public works of communication and transit. A close relationship may be discerned in every country between the undertaking of public works, especially roads and railways, and the rate of increase of population, showing that the population capacity of a country is chiefly affected by the development of works giving access to markets. Some great industries have been practically created by Government bounties on exports, as the beet sugar industry on the Continent of Europe. A substantial bounty paying the cost of transit is an important factor in giving access to foreign markets. For centuries the planters in the West Indies, Demerara, and other tropical countries and colonies obtained monopoly prices for cane sugar, molasses, and rum, employing for many years slave and, latterly, coloured labour with

plant of the roughest and most wasteful description for extraction and refining.

The rise of the beet sugar industry on the Continent gave profitable employment to a free white peasantry numbering millions, reduced the price of cane sugar to half the rates prior to 1856, and caused a great improvement in processes of manufacture. It also encouraged the development of fruit preserving and confectionery, giving employment to a vastly increased staff of white people in European countries and the fruit-growing colonies. The imposition of countervailing duties on the importation of beet sugar to England is a question that admits of more than one opinion, in the consideration of the relative merits of black and white labour.

Racial conditions chiefly affect population through the impossibility of securing the survival of the best elements of race by assimilation or mixture. The black and white never blend into a fixed or elevated type ; and the black may be propagated at a higher rate of increase, from the presence and influence of a white race in the country. In South Africa, India, and the United States of America this constitutes the greatest danger to the white races of the present and future ; the progressive works and rule of the white races fostering the increase of the black races at a much greater rate than their own. In the British Empire, especially, the proportion of the black races being already 85 per cent. of the population, the only safeguard for purity and elevation of race, so far, is the wise jealousy of the chief British colonies of the intrusion of men of colour. This jealousy is viewed with disapproval only by people and statesmen in England who are ignorant of the sub-

ject and have an exaggerated fondness for theoretical liberty.

The subject of irrigation is treated in a special chapter, because, although entirely neglected in England, it is the most important and the greatest public work required throughout the British Empire, as well as the rest of the world, for the increase of population capacity. The art of irrigation is still in a backward and undeveloped state, and considering the contemptuous indifference with which it is regarded by the English people, and the enormous loss of material wealth and population capacity to the empire and even to England itself arising from this indifference, too much attention cannot be given to the subject.

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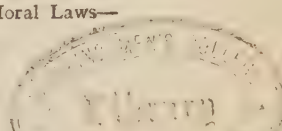
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ITS capacity for the support of a numerous population is the problem of the first importance for any country solicitous of the means of defence. The capacity of the world for the occupation of humanity is a matter of world-wide interest, and the factors which tell for or against the growth and maintenance of population are worthy of close investigation. The area of the world is practically a fixed and well-defined quantity, and the variations of the numbers of people supported on various areas at different periods in their history depend upon the state of social organisation, government, public works, and the progress of the arts and sciences which further material welfare.

Man is a material being, his intellectual faculties are inseparable from his corporeal presence in the material world, and it is only by the exercise of these faculties upon the direction of labour that the capacity of the earth for population can be developed. In its wilderness

state the finest country in the world has never supported more than one person on one square mile. As a mere beast of prey each man requires many square miles of territory for a successful field of operations. To add to his subsistence the wild unimproved fruits and roots of the earth, he must visit an extensive area of country, and gather on many favoured spots. Without intelligent labour vast regions of the earth's surface must remain destitute of inhabitants, and only the finest climates and soil are capable of giving support to even the smallest modicum of the untutored savage.

The population capacity being entirely dependent upon the civilisation factors, it is not only an index of the state of civilisation, but it leads to the conclusion that every country is peopled up to its capacity at that stage of civilisation. The population of any country at any time is all that it will carry in its state of civilisation or development at the time. A country like America or Australia has, in the prospect of the improved civilisation of an alien race, a vast potential capacity for population ; but its actual capacity at any given period is the population it carries in the then state of the country. The alien settlers carry with them the potentiality of increased population in their higher civilisation and the crafts pertaining to it ; but until these factors materialise in public works and organisation, and they are able to enjoy the fruits of their labour, the over-population of an uncivilised land entails endless privation for the bold pioneers. A country long settled by races slowly emerging from barbarism to civilisation, like the European nations, carries at each period of its existence the population suited to the stage of development arrived at in that period.

The uniform level of density arrived at in old and in the settled portions of new countries in recent times is a proof of the strict relation of the density of population to the civilisation of all countries. By phenomenal rapidity of increase the population of the eastern United States and the settled portions of Canada has arrived at a density equal to that of the older European States from which the alien races proceeded. Similarity of the

climate and fertility of the soil make these States capable of the development of a civilisation similar to the modern European. Rapid intercommunication has maintained a certain uniformity of development, if anything, favoured by wider scope and the absence of conservative vested interests in the newer countries.

Progress in the Western States of America is handicapped by novel conditions, absent to a great extent from European experience. Irrigation can hardly take a place yet in the European national crafts, and the application of pressure irrigation to Eastern countries has not even commenced. The development of pressure irrigation on a great scale is absolutely essential to the peopling of the western half of the United States, and this national undertaking is yet in inception. With its full development in the course of centuries, the West will carry a more dense and virile population than the older Eastern States.

The great valleys and plateaus susceptible of irrigation by gravitation methods in Asia and Northern Africa carried an enormous population in ancient times. From the extent of the ruins of ancient Babylon, the late George Smith estimated the population of this city alone at eight millions of people. At the same time Nineveh reared its stately piles to a similar extent, and hundreds of great towns and villages were scattered over the immense plain through which the Euphrates and Tigris Rivers distributed by thousands of miles of canals and ditches the life-giving water. A hundred and eighty millions of people may well have subsisted in comfort through countless ages on the fertile plain of Mesopotamia. The density of population of the irrigated country of modern Egypt is 800 people to the square mile, and the irrigated country of Mesopotamia would certainly have carried an average of 500 persons on the square mile.

Boghos Nubar Bey, A.M.Inst.C.E., an Egyptian engineer in the Government Irrigation Department, writes in "*Le Génie Civil*," Vol. V., 1886: "The present area of cultivable soil (in Egypt) is nearly 10,000 square miles ; but according to the best authorities

five times this area was inhabited and cultivated by the ancient Egyptians. The erosion of the cataracts is assigned as the cause of this falling off; at the first cataract there was in olden time a natural weir which gave opportunity for watering a large area which is now desert. At Semneh, between the second and third cataracts, an inscription shows that in former times high flood-level was 26 feet above the present highest flood."

The great lakes along the Egyptian coast of the Mediterranean Sea, Lake Menzaleh, Lake Brulos, and others cover an area of land, millions of acres in extent, once the most fertile and densely peopled, and still showing ruins of great cities and villages, the names of many of the former well known in Greek history. The population of Egypt in the era which achieved the reclamation of the Deltaic lands by forming the great sea embankments along the coast and clearing out the sea water by huge water-wheels driven by organised foot-labour, besides great inland lake-reservoir and canal works on the Upper Egyptian desert plateaus, was at least forty millions; as great a country as modern France or England. This population was spread over an area of cultivated land with large cities, towns, and villages, not exceeding 50,000 square miles or almost the area of England.

In irrigated tropical countries the rural population is much more dense than in countries of colder climate watered by rain. The public works for means of communication and transit specially required by such a settled rural people are comparatively insignificant. The River Nile and the numerous irrigation canals carried the whole of the heavy goods traffic of ancient Egypt, and similar means of water transit made the growth of enormous cities practicable in the valley of Mesopotamia. A city of eight millions of inhabitants is impracticable without a highly developed system of goods transit, and ancient Babylon must have been traversed closely over its entire area with a network of great canals. The density of population in the portions of Northern India cultivated under irrigation

is as high as 1,000 inhabitants to the square mile, entirely dependent upon agriculture for their livelihood. Roads are still in their embryo state in India, and railways are confined to main trunk lines, dealing mainly with through passenger and goods traffic. A fair idea of life and distribution in the tropics in ancient times may be deduced from the existing conditions in India. A close settlement of the people on the irrigated land, with travel, trade, military enterprise, and learning, confined to small governing castes generally of foreign origin, was the constitution of all the densely peopled countries of the ancients.

The population capacity of irrigated countries is the highest possible on agricultural limits. Irrigation is the greatest of national public works. Its high state of development in countries to which the gravitation system was applicable was the cause of the immense population capacity of Egypt, Mesopotamia, Persia, Beloochistan, and the ancient Khanates extending eastwards from the south-eastern shores of the Caspian Sea and watered by the Atrek, the Murghab, the Oxus, the Jaxartes, the great Tarim River, and a hundred lesser streams issuing from the mountain chains of Northern Afghanistan and India. That these countries were the principal centres of population and civilisation during the space of ten thousand years preceding the rise of Greek and Roman civilisation, there is ample evidence in ruins still existing.

The rise of Egypt by the inception of irrigation works must be dated very far back indeed. There is no record of any useful public work being conceived or organised under the sway of the Shepherd Kings. They came, they saw, they conquered, but that miserable rôle in history was all they were good for. The race of men who made ancient Egypt was pre-Coptic, and has long since perished without leaving a racial trace. Their place is filled in modern times, not by a Coptic race, but by the degenerate offspring of Arabs settling on the irrigable lands left desolate by repeated invasion and destruction. The last of the Copts are purely townsmen, filling offices and shops with the store clerk of

modern commerce, and conspiring against the British rule which clothes and educates them.

By the construction of the great dam at Assouan the British Egyptian Government has raised the flood-level of the Nile 24 feet, that is within 5 feet of the pre-Coptic level. In doing so, however, the British Raj, in face of great outcry from the archæologists, submerged the ecclesiastical remains of the temples of Philæ, erected during the glorious reigns of the superstitious Shepherd Kings, at a level clearly indicating the degeneration of ancient Egypt under their rule. Pre-Coptic Egypt of the great reclaimed area could have been created only by a virile race of highly organised voluntary workers. Intelligent labour always has possessed and always will possess the earth. The *corvée* of the pre-Copts formed sea embankments along the Mediterranean coast, drained the sea water from the coastal lagoons, and brought the coastal regions into a high state of cultivation before the Shepherd Kings made their appearance. The canal system on the Lybian Desert, remains of which are still evident in oases and dry wadis hundreds of miles apart from the Nile which formerly filled them, was the work of pre-Coptic hands. These hands, enslaved and cowed by the military-ecclesiastic power which ruled Egypt for 6,000 long years, were diverted from public works to ecclesiastical buildings "embracing pyramids (tombs), temples, colossal statues, obelisks, sphinxes, and other objects of vertu, together with a countless variety of sculptures and paintings on the walls of numerous temples and caves cut out of the rocks upon either side of the river's course." A more useless display of misapplied public labour has only been paralleled by the mediæval ecclesiastical buildings of Europe, which enslaved the bodies and souls of a stationary population over a thousand years of history.

The pre-Coptic race of Egypt was closely allied to the race which irrigated and reclaimed the region of Mesopotamia, called by the late George Smith the pre-Assyrian. "By their works ye shall know men," and the people who carried out the great irrigation works of prehistoric times in Central Asia were of the patient

laborious, and intelligent stock represented by the modern Chinese and Japanese. Everywhere the military and fanatical Aryan races found them an easy prey, except where the shepherd races of similar stock developed in the nomadic career of Asiatic Steppes a ferocity exceeding even that of the Assyrians, the Copts, or the Hebrews. The little yellow men of Chaldea, Canaan, and Egypt; the Midianite miners, the patient builders of stone retaining walls and terraced slopes; the inventors of stone and clay tablets, of literature, law, and engineering, have utterly disappeared, leaving only their public works and literature in the ruins of their conquerors' edifices. The language and arts, even a blend of the superstitions of the yellow races with their own bloodthirsty traditions, have come down through the records of the conquering races, who adopted them as the Germanic barbarians embraced the Roman literature and arts in later ages. But in every conquest destruction had its effects in decrease of population, and the diversion of labour from useful public works to the works of superstition by Aryan rulers had growing effects in the gradual decrease of the population capacity of the conquered countries.

In the year 1873 the Japanese people followed two systems of religion, the Sintoo and Buddhism. The Sintoo temples had no images, a circular mirror some three or four feet in diameter, of great beauty and high polish, stood on a semi-circular carved pedestal in the interior of the temple, forming the shrine of purity before which obeisance was made after a coin or two was dropped through the bars of a large offering chest. Foxes in wood or stone ornamented the verandah, but no images of any kind furnished the interior. In the Buddhist monasteries the grounds contained what were evidently the houses of gods of a heathen people, not only tolerated by the monks but still honoured by the modern inhabitants. One of these heathen shrines at Sakai contained the goddess Ayamété with her 3,333 saints or attendants carved and gilded in wood. In the Chinese province of New Chwang, the Snow Hollow Monastery contained similar heathen shrines with a

large group of images in stone, each 40 feet high, seated with hands on knees, evidently preserved by a tolerant Buddhism from bygone ages. The perusal of the work of George Smith upon Assyriology showed the interesting fact that the goddess Ayamété with her 3,333 attendants figured as a pre-Assyrian deity, and the language in which her virtues were described, rendered from Assyrian tablets, was virtually Japanese.

That the pre-Assyrian race was partly driven out of the country by way of the Persian Gulf, and partly enslaved by their Assyrian conquerors, there can be little doubt, and notwithstanding the adoption by the Assyrian raiders of literature and arts from the conquered race, the state of servitude to which the latter was reduced must have reduced the population capacity of the land of Mesopotamia. Large tracts of land lay vacant at the time of the Babylonish captivity of the Israelites, for the whole of that people were driven from Palestine to settle on the banks of Babel's streams. On the restoration of the Jews to Palestine seventy years later, a large proportion of the nation elected to remain permanently in the land of the captivity, where doubtless the industry of two generations had established more flourishing settlements than they could expect to make in a land which had lain desolate for ages. The population capacity of the Holy Land would not have been increased by desolation, notwithstanding the "rest to the land" desiderated by the law and ignored by the people.

National life is a delicate plant that will not flourish under the drastic pruning of indiscriminate slaughter. The Assyrian raiders had a habit of treating military prisoners by passing them under saws and harrows, flaying them alive, and handling them generally so that they might well regret that they had ever had the misfortune to be born. Non-military survivors were at liberty to continue the cultivation of the land on allodial tenure, subject to payment of taxes in kind, but the family ties must have been weakened where not abolished by the treatment after conquest, and the maintenance of public works would not be carried on with the spirit

of a free and hopeful people. Of only one Assyrian king is it recorded that he built a dam and made irrigation canals, and works so peculiarly national in their scope must soon fail without wise supervision and repair. The country was not always under a single government, Nineveh and Babylon being long rival capitals. The ruling race was constantly employed in distant warfare. Their numbers were not maintained by settlement in the country, concentration in Nineveh and Babylon was not improving to *morale*, and the ultimate overthrow of both cities and the desolation of the country were due to the extinction of the Assyrian defenders.

The Turks and Tartars were the predatory races which completed the depopulation of Central Asia, Mesopotamia, and Egypt. The Tartars under Jenghis Khan, at the taking of Balkh in the thirteenth century, are said to have slaughtered one-and-a-half millions of inhabitants in continuous massacre. The plains of southern Turkestan, now sandy desert, were then covered with fruitful irrigation farms; and the country, even after their own ruthless depredations, was so rich as to become the centre of a Mongol power extending over the Continents of Asia and Europe from Hungary to the Pacific Ocean.

Ten centuries of Mongolian and Turkish rule have reduced the population capacity of the three wealthiest lands of the ancient world to practically nothing. In the year 1857 the population of Egypt had dwindled down to under two millions. The land was steeped in poverty, the condition of the fellaheen being worse than the poorest classes of any country in the world. Their allodial tenure of the land was rendered worthless by the unscrupulous exactions of a forced *corvée* for the benefit of the estates of a few wealthy Pashas, with heavy taxes on the meagre produce they could raise from their own lands during the worst season of the year. The Khedive Ismail was creating the vast estates of the Daira Sania to be worked by slave labour, replacing the allodial holders. The irrigation canals had silted up until little water remained for small land-holders after their wealthier neighbours had been

satisfied, and the perennial system of cultivation introduced with cotton was rapidly exhausting the fertility of the Delta. The population capacity of the country could never exceed two millions under such administration, and if Turkish rule had continued, doubtless the banks of the Nile would soon have attained a desert state similar to the banks of the Euphrates and Tigris.

Thirty years of British rule has brought up the population capacity of Egypt from two millions to eight millions, and the increase has taken place at an increasing rate annually. Probably such a rate of increase is unprecedented, and is due in a great measure to the removal of great political and economic burdens, such as the oppressive rule of the Pashas, the abolition of forced military service and of the labour *corvée*, the honest service of national debt, the lightening of taxation, and the institution of justice. But the greatest factor in the increased capacity of the land for population was undoubtedly the re-creation of the national irrigation works. These are now in a state nearly equal to the time of the later Shepherd Kings, and the British staff appear to have reached a stage at which they consider their labours in this direction fulfilled by a complete utilisation of the waters of the Nile so far as they reach Upper Egypt. By additional improvements near the source of the Nile additional water-supply may reach Egypt; but such improvements in the Bahr-el-Gazal region, being costly and requiring many years to realise, are not considered within the domain of practical politics.

The plea of the British Raj in Egypt against further land or irrigation works or concessions, that the Nile water is now fully utilised, is one that will not bear the light of modern science. The water-supply from the Nile to the land may be immediately doubled by the substitution of steel pipes for open and porous canals and ditches. Evaporation and soakage account for the loss of two-thirds of the head waters in India, and certainly cannot run away with less than half the supply in Egypt. Pressure irrigation by spraying apparatus will also economise water, and apply it much more effectively for plant growth than the ancient and wasteful

system of flooding by gravitation. A vast reservoir of sweet water exists wholly untapped beneath the soil of Egypt. The accumulation of hundreds of years of soakage in subterranean water finds vent in numerous springs along the Mediterranean coast. Subterranean waters tapped by artesian wells and distributed through pipes under pressure will yet irrigate a new area larger than the present cultivated soil of Egypt. The sites of the coastal lakes and the Lybian Desert afford a field for the expansion of the agriculture of Egypt of unlimited extent. The potential population capacity of Egypt from these economies and sources is over a hundred millions. But the present rulers of Egypt distinctly state officially that no such operations will be considered by them. Open gravitation methods of irrigation will be strictly adhered to by conservative Anglo-Indian rulers, until an advancing Government like the United States staff show the way by national works of pressure irrigation on a grand scale. Then the British-Egyptian staff may experiment very cautiously on a limited scale.

The French Government in Algeria, having no great river supplying water like the Nile, has devoted its attention to the development of irrigation from the stores of subterranean waters found nearly everywhere at a sufficient depth. Thousands of artesian wells have been bored to the water-bearing strata, and farms reclaimed from the desert over an area which now sustains several millions of dusky French Arabs. The low rate of increase of the population of France is only made out by excluding an integral part of the Commonwealth, for Algeria is no mere colony, having a uniform customs tariff, and sending deputies to the Chambers of national representatives at Paris.

The first appointment of a foreign official made under the new constitutional *régime* in Turkey was that of a chief engineer drawn from the former head of the Irrigation Department of the British Government staff in Egypt. Sir James Willcocks was appointed for a period of five years to survey and report upon a scheme for the resuscitation of the irrigation works in Mesopotamia,

to which he had already given some attention. Many years must pass, however, before tangible results on the population capacity of the Turkish possessions in Asia can be realised from public works for the mere restoration of the ancient gravitation system by storage and distribution in open canals. The more modern efforts of Australian and American engineers for the immediate distribution of water by pumping through pipes would give quick returns by the restoration of agriculture, and combined with great works for storage, would ultimately yield a higher economic result than mere restoration. The restoration of the former population capacity of one hundred and eighty millions to this part of Turkey is a prize worthy of strenuous national effort extending over centuries of enlightened policy.

The restoration of the great valleys and plateaus of Southern Turkestan and Mongolia, the supposed cradle of the Aryan races, to population capacity is hardly yet within the domain of practical politics. Not only has the destruction and migration of the agricultural and irrigating population rendered the land desert. The water-supply from the snow-covered ranges of the Himalayas and the Beloor Tagh on the south, and Kuén-lun and Thian-shan in the interior, has gradually disappeared through the porous strata of the desert ; and great works of storage and impermeable ducts will be required for the utilisation of the natural resources of this extensive region. The Russian Government has already commenced works for the reclamation of the banks of the Atrek River, but political difficulties due to international jealousies, the divided ownership of the mountain chains from that of the plains they supply with water, and the immense distance from modern centres of civilisation, form a barrier to improvement which it may take centuries to overcome.

CHAPTER II.

ROMAN CIVILISATION.

Prehistoric Europe—Roman Conquest—Increase of Northern Europe—Roman Roads—Agricultural Improvements—State Organisation of Works—Population of Roman Empire—No Land Tenure in Northern Europe—Roman Constitution.

THE prehistoric centres of population and civilisation in Asia and North Africa, depending for their capacity in the first place upon irrigation by great distributing canals formed by national organisation of labour, required no other roads than the irrigation canals and rivers for the transport of produce in bulk and other heavy traffic. With the transfer of civilisation to the growing populations on the borders of the Mediterranean Sea, the nature of the public works required changed with the character of land and climate.

The state of Europe during the ages prior to the rise of the Roman Commonwealth may be gathered from the barbaric nations encountered by the armies of the Commonwealth during its extension northward. The re-settlement by man after the last glacial epoch had taken place by the migration of various races from Africa and Asia, like all migratory races, in a primitive stage of civilisation. Vast stores of kelts, flint arrow-heads, stone hatchet-heads, and similar relics of the stone age remaining in superficial strata throughout Europe testify to the simplicity of habit and fare of these hunters. At Culbin, on the south shore of the Moray Firth, three layers, each less than a foot thick, of black detritus occur within a few feet depth from the surface of a sand-hill, in which some 30,000 perfect flint arrow-heads have been found and stored at Edinburgh. These arrow-heads and innumerable kelts of flint on this

limited area indicate the site of a factory for the manufacture of the most necessary article of a hunter's outfit. The bones of small game occur in the same strata, split and broken for the extraction of marrow, and shells of the cockle still gathered on the "Old Sand Bar." Commerce and navigation must have been carried on to an extent remarkable in a primitive race. But skill in providing the necessities of a hunter's or fisherman's life does not argue a great population capacity of the country—rather the reverse.

The standard by which the population capacity of stone-age Europe may be measured is the capacity of North America in the hunting ages prior to the first European settlements. That being placed at some three millions, or one to the square mile, no more can be allowed for Europe before or beyond the influence of Roman civilisation. The conquests of the Romans in Europe, in the face of a sparse and primitive population, were similar to the settlement of North America or Africa by the white races of Europe. The main resistance to conquest by the Romans consisted in guerilla attacks and the difficulties of supply. Time, plodding perseverance, organisation, and road making were the means that established Roman Colonies in Europe, and as order and civilisation progressed, the population capacity of Roman Europe increased.

The savage Teutonic races, whose native forests and swamps presented an impenetrable barrier to the Roman armies, where no massed battalions worthy of their steel could be met, proved no barrier to the spread of the arts and crafts of Roman civilisation, especially in all that related to the arts of war. The population capacity of the dark countries beyond the Roman frontier gradually increased during the five centuries of the Empire, until the barbarians became a formidable military power. Many of the barbarian leaders were trained in the Roman armies on the frontier. Slaves who were adepts in the crafts of agriculture and Roman manufactures, including arms, were captured and worked to advantage by the Germans. As the Romans themselves learned the craft of warship building from their

enemies of Carthage, the Germans and Scandinavians built their navies and organised their land forces on the Roman model. The greatest military advantages acquired by the northern European races from the Romans, however, was the knowledge of the peaceful arts and crafts of agriculture, manufactures, and communications ; which increased the population capacity of their land to an extent that made the alien races a formidable foe.

While the maritime provinces of the Roman Commonwealth and Empire were accessible for heavy traffic by sea, navigable rivers and canals were little available for communication with the interior of the Continent of Europe. Thus the Roman Empire was extended to the Danube and the Rhine, and generally throughout Europe and Asia Minor, by means of roads—Roman roads, the first and only roads prior to John Macadam. Although made primarily for military communications, the Roman causeways were invaluable for the ordinary traffic of streets and roads. The uncovered streets of Pompei and Herculaneum show how the basalt causewayed streets are worn into ruts by the wheels of years of heavy traffic. In Asia Minor there were eleven great cities with populations from a quarter of a million to a million people, including Hypaspe, Tralles, Laodicea, Ilium, Halicarnassus, Miletus, Ephesus, Sardes, Magnesia, Smyrna, and Antioch. "All these cities were connected with each other and with the capital by the public highways, which issuing from the Forum of Rome traversed Italy, pervaded the provinces, and were terminated only by the frontiers of the Empire."

"The public roads were accurately divided by mile-stones, and ran in a direct line from one city to another, with very little respect for the obstacles either of nature or private property. Mountains were perforated, and broad arches thrown over the broadest and most rapid streams. The middle part of the road was raised into a terrace which commanded the adjacent country, consisted of several strata of sand, gravel, and cement, and was paved with large stones, or in some places near the capital with granite. Such was the solid

construction of Roman highways, whose firmness has not entirely yielded to the effort of fifteen centuries. Houses were everywhere erected at the distance of only five or six miles apart ; each of them was constantly provided with forty horses, and by the help of these relays it was easy to travel one hundred miles in a day along the Roman roads. Nor was the communication of the Roman Empire less free and open by sea than it was by land. The provinces surrounded and inclosed the Mediterranean, and Italy, in the shape of an immense promontory, advanced into the midst of that great lake. From the artificial port of Ostia, which was only sixteen miles from the capital, a favourable breeze frequently carried vessels in seven days to the columns of Hercules, and in nine or ten to Alexandria in Egypt.”*

Agriculture, the growth and grafting of fruit trees, the development of sea fisheries, the manufacture of wines, distillation, and the growth and manufacture of fibrous plants for clothing and carpets, were arts introduced to Europe by the Romans. Apples were indigenous only to Italy ; the apricot, the peach, the pomegranate, the citron and the orange were Asiatic or African fruits introduced by the Romans to Italy and the rest of Europe. The olive, in the western world, followed the progress of peace under the Roman sway, and was considered the emblem of peace. The cultivation of flax was transported from Egypt to Gaul and enriched the whole country. The use of artificial grasses became familiar to the farmers both of Italy and the provinces, particularly the lucerne, which derived its name and origin from Media. The assured supply of wholesome and plentiful food for the cattle during the winter multiplied the number of the flocks and herds, which in their turn contributed to the fertility of the soil. To all these improvements under the empire may be added an assiduous attention to mines and fisheries, which, by increase of employment, food, and comfort, increased the population capacity of the Continent.

* Gibbon's "Decline and Fall of the Roman Empire."

The controlling principle of the advancement of civilisation and the increase of population capacity under the Roman government of Southern Europe, was State organisation and direction of public works. Competition was confined to private trading, and did not enter into the development of public works, agriculture, fishing, or mining. The joint-stock company, limited or unlimited, did not exist; and individual business effort was unequal to the promotion of public works as speculative business. The Avebury absurdities that trade includes public works, and that a city council laying down a tramway is "municipal trading," were inconceivable theories to the Roman mind. It has been left to the *laissez faire* nineteenth century to burden its successors with the fruits of this ruinous philosophy in the decaying competitive railways, the dead canals, and the unremunerative agricultural industries of twentieth century England.

Prior to the rise of Roman power the average density of population in Europe was considerably under one person to the square mile. North America and all other totally uncivilised countries appear to be occupied by savage races at a similar density. The Roman Empire, in the second century and the first half of the third, comprised an area of 1,600,000 square miles in Europe, Asia Minor, and Northern Africa. Its population of 120,000,000 gives a density of 75 to the square mile. Compared with Europe in 1760, when its population shows an average of 29 to the square mile, the Roman Empire had two-and-a-half times its population capacity, and must have accordingly developed a much higher state of civilisation.

The barbaric standard of population in Europe, under one to the square mile, was difficult for races of great natural intelligence to maintain. Unceasing tribal warfare, where the separate tribes were infinitesimal in numbers, and larger units were only temporary alliances, and the wilful exposure of infants to death to keep down the burden of maintenance and maintain a high physical vigour, kept the birth-rate and death-rate sufficiently uniform to satisfy the most enthusiastic follower of

Malthus. But the chief curse of the prehistoric races of Europe was the total absence of a land settlement on the family or indeed upon the individual. There was no form of land tenure whatever; if an enterprising individual tried to form the most primitive cultivated farm, his holding expired with a single crop. The family was held together by the women, who were the sole representatives of agricultural and manufacturing labour in the community. Slavery made little progress among the barbarians until its introduction with the civilisation of the Romans.

The Roman Commonwealth probably founded by Greek immigrants, and organised as a State by Romulus, introduced from the earliest times two principles which tended steadily to develop civilisation and extend the national boundaries over increasing populations. The land was settled on the people by allodial tenure of the family, and the State assimilated strangers, either immigrants or neighbours, to all the rights of the Roman Constitution. In addition to a pure administration of justice, the State provided public works on a gigantic scale, creating a national property in the highest degree stimulating to industries, and conducive to the multiplication and welfare of individuals. The teeming population of the Roman Empire was literally created by the Roman State.

CHAPTER III.

THE DARK AGES IN EUROPE.

Will of Cæsar Augustus—Growth of Northern Europe—Gothic Raids—Feudal Settlement—Low Civilisation of Europe—The Moors in Spain—Influence of Religion in Israel—Influence of Religion in Rome—Roman Britain—Roman Evacuation of Britain—Saxon Epoch in Britain—Norman-England Capacity—Mediæval Europe—Causes of High Death-rate—Infant Mortality—Treatment of Women—The Mediæval Church—Marriage.

CÆSAR AUGUSTUS, the man who first moulded the Constitution of the Empire, and probably the most artful politician who ever reigned in Rome, bequeathed as a legacy, by will publicly read in the Senate, “the advice of confining the Empire within those limits which Nature seemed to have placed as its permanent bulwarks and boundaries; on the west the Atlantic Ocean; the Rhine and Danube on the north; the Euphrates on the east; and the sandy deserts of Arabia and Africa on the south.”

Cæsar Augustus always had considered “that the northern countries of Europe scarcely deserved the expense and labour of conquest.” This fatal error became the settled policy of the Roman Empire. The forests and morasses of Germany were sparsely occupied by a hardy race of barbarians, who despised life when it was separated from freedom; and though on the first attack they seemed to yield to the Roman power, they soon, by a signal act of despair, regained their independence, and reminded Augustus of the vicissitudes of fortune. Constant warfare on the northern border was the result of Cæsar’s legacy, which, while it maintained a useful school of arms and discipline, added nothing to

the defensive power of the empire, as no progress was made towards a settled peace with the outer world.

So long as neighbouring countries contain races of men dissatisfied with their circumstances, there can be no security for a rich country without constant vigilance and a thoroughly trained and disciplined territorial army. The miserable barbarians of the first century were given ample time and opportunity by service in the mercenary armies of Rome for the gradual acquisition of Roman arts and culture, to the great increase of civilisation and the population capacity of their own country. The art of agrarian settlement fixed the habitat of the various tribes, which by the middle of the third century was sufficiently defined for the Goths on issuing from Sweden to rally the Vandals and many of the Sarmatian tribes to their standard for the attack and plunder of the empire.

The first Gothic raid upon the empire, in the year 250 A.D., found the worthy Decius in the imperial purple. Although Decius concentrated an overwhelming number of Roman troops against the Gothic army of 75,000 German and Sarmatian semi-barbarians, yet his incompetent strategy and his ignorance of his own Maesian territory led to his overthrow in a morass undiscovered by Roman scouts and undrained by Roman engineers. The body of the unfortunate emperor was never recovered from its boggy sepulchre, and raid followed raid upon the unfortunate empire, until by the third Gothic invasion the finest cities of Asia Minor were sacked and the empire shaken to its furthest confines. A succession of able rulers pulled the empire together for another century, but ultimate recovery of defensive strength was impossible in the face of the rapid growth of the population capacity and resources of Northern Europe.

The inclement climate which stayed the Roman generals shivering on the banks of the Rhine and the Danube—rivers in those days frequently frozen into a solid highway sufficing for the passage of the armies and heavy waggons of the northern invaders—controlled the development of civilisation on lines very different from the pleasant climate of Southern Europe. The

land settlement developed on the militant lines of the feudal system. The permanent settlement of the family became an aristocratic institution founded upon the holding of estates of vast area, sublet to tenants on a tenure dependent on military service. Agricultural labour was always held in contempt, the inheritance of slaves or serfs, and the drudgery of non-combatants or women. The brains of the nation never bent themselves to agricultural improvements, and public works were unthought of. Without coal and steel these countries were not susceptible of development to great population capacity, and from the earliest days of intellectual advance the Norse and German races have been perforce an emigrating or raiding people.

Wherever the northern conquerors established a permanent footing the feudal system changed the tenure of land from agrarian allodial to the great military fiefs and servile tenancy. The change brought with it a marked diminution of population capacity. Poverty, illiteracy, and depression or extinction of trade, further diminished the density of population; the total stoppage of public works, the diminution of produce and lack of distribution of the necessities of life, the absence of capital, and the contempt of labour, completed the impoverishment and degradation of the European nations far below the standard of civilisation in the vanished Roman Empire. The Christian clergy taught the fell doctrines of the sinfulness of man, punishment temporal and eternal, persecution for freedom of thought; and succeeded in realising the fanciful visions of purgatory and hell in the state of Europe. Famine, war, and pestilence were never absent from some part of Europe from the period of the fall of the Roman Empire down to the peace of the twentieth century.

One bright vista was opened for a century or two in Spain, by the immediate following of the Moorish occupation upon the expulsion of the Roman power. The Goths, by the maintenance of tribal disunion in their most recent scene of spoliation, laid themselves open to defeat by the Moslem power before they had

time to make a serious impression upon the irrigated farms of the South by a system of tenure totally at variance with irrigation. For a brief period the system of allodial tenure followed by the Moors reaped the abundant harvests for which the necessary public works had been inaugurated by the Phœnicians of Carthage and maintained and developed by the Romans. But the holy wars of the Catholic Goths laid the fair province of Estremadura waste to provide a military frontier on the Scandinavian pattern, and killed or expelled the Moorish cultivators of the coastal provinces. Spain has never recovered from the economic disaster, feudal organisation has kept the population capacity of the country below the standard of even its moderate intellectual capacity, and only emigration to South America has eked out the limits of expansion required to supplement the pious efforts of the Church to keep down population by celibacy.

The immediate cause of the destruction of the Israelites by each successive foreign invasion was invariably their apostasy from the national religion. While the abrogation of the Mosaic land laws was the cause of the dwindling of the territorial army, the high spirit which animated their troops to preserve national independence was a moral principle associating patriotism with the worship of the all-powerful Deity revealed in their magnificent code of laws. Apostasy from the purity and righteousness of the worship of Jehovah not only entailed moral degradation, but the abandonment of the faith of their fathers severed the link of racial unity and exposed the nation to absorption in the surrounding heathen. A similar fate overtook the Roman Empire in the zenith of its power.

Religion is the most conservative principle that rules the lot of humanity. The faith of the Roman fathers was eminently polytheistic and national, the Lares and Penates of the domestic hearth were the foundation of the family, and in all countries the family is the unit of the nation. A sect which is absolutely cosmopolitan in principle and individualistic in teaching, was diametrically opposed to every tradition of Roman ethics.

Christianity was the only religion systematically persecuted by the Roman State ; all other religions, being national institutions, were regarded by the Roman Government as the legal right of the nation or race whose tradition they formed.

Christianity was introduced to Rome at the most unfortunate phase of Roman life, both for its own development and for the welfare of the State. Family ties had been weakened by slavery, commercialism, and personal luxury and idleness in the native community. Individualism was well established at the expense of the family constitution of the commonwealth. The empire was erected on the ruins of the agrarian family government, and the ties of consanguinity were ignored in the frequent adoption of total strangers by the greatest persons in the State, to the most intimate relations of children. Julius was succeeded in the supreme dignity of emperor by his adopted son Octavianus, the offspring of an utterly foreign and indistinguished family which disappears from history or knowledge with his adoption by the Cæsars. Family ties were entirely ignored in State and business.

The Christians under the immediate tuition of the Apostles were regarded by the Church as families, every convert made by them was baptised *with his house*. The Roman ecclesiastics were content from the first to gain a single convert in any household ; husband or wife, child or servant, they ministered to the individual alone. The chief cause of the persecution was the insidious creeping into families and state, by the mysterious severance of all social ties, produced by the new religion. The fanatical pursuit of individual salvation by a sect which ignored the family or the national organisation of humanity, was sufficiently alarming to induce persecution, without the time-honoured explanation of a persecuted church, that the powers of darkness animated their persecutors.

The richest province of the Roman Empire was its latest acquisition, that part of Great Britain subsequently known as England. Not only did the introduction of the cultivation of wheat, oats, barley, and

other grains, the lucerne and other artificial grasses, apples, currants, and other fruits, tend to produce in the most equable and temperate climate of Europe another granary and stock-rearing country for the empire ; but the mines supplied Rome with tin, copper, bronze (of which the circular Roman pigs have been unearthed in Wales), and iron. A mining and agricultural population was generated during the four centuries of the Roman occupation, of the average density of the rest of the empire, and the country carried not less than five millions of people, probably six millions. The arts and crafts of the Romans flourished equally in this fine climate with those of Italy ; the remains of Roman villas, towns, camps, and roads, bespeak a very high stage of civilisation. The distance from Rome assured to the inhabitants of Britain a greater amount of personal liberty under the best of the pro-consuls than in any province of the empire. Christianity found a finer field on the plains and valleys of England for its already degenerating influence upon family and national life, and the removal of the disciplined Roman legions left only an utterly defenceless and disorganised people a prey to the hardy Keltic clans and low-German pirates of the north, who were still heathen and warlike. The monkish and celibate saints who dominated the inhabitants after the Roman evacuation could organise nothing better than useless monks and nuns, could advise nothing more manly than patient endurance of slaughter and robbery. Defence of hearth and home, the very existence of these institutions, was of the nature of the gratification of carnal lusts and therefore sin. Were the miserable victims of heathen rapine and murder not assured of an eternal home in glory ? Then why fight for that which was not worth preserving, unless as the matrix upon which the fair abbey, the holy convent, or the monastery, fattened ; but conversion of the conquering heathen would soon bring the clergy a fresh set of supporters. " For whatsoever king shall reign, I'll be the vicar of Bray, Sir ! "

The denationalisation of the British by the Romish clergy, brought their easy conquest by clannish heathen

tribes and rovers in its immediate train. They called for the aid of the German seamen, and found themselves out of the frying-pan into the fire. The population capacity of the country, already lowered by the celibate tenets of the clergy and their diversion of labour from public works to ecclesiastical buildings, was speedily reduced to a barbarian level by fire and sword and the destruction of public works.

During the Saxon epoch of the next four centuries, the country maintained only half the people who flourished under Roman rule. The live stock degenerated into herds of rough swine, fattening in the forests of beech and oak which overspread the wasted arable lands of the Romans. The state of the country that reveals itself in the pages of venerable ecclesiastics, and in the records of the wars of Alfred and the Danes, shows a roadless forest—covered land closed alike to agriculture and commerce. After the Norman conquest huge fortified castles dominated the feudal estates carved out of the degenerate holdings of Saxon and Danish carles. The towns were isolated barracks where warlike burghers maintained a struggling existence in the narrow closes and gloomy overcrowded tenements left over from the grasping claws of the religious orders. The first four centuries after the Norman conquest saw a population absolutely stationary at $2\frac{1}{2}$ millions or 20 persons to the square mile; much the same as the county of Inverness-shire at the present day.

Europe was in no better condition after the collapse of the Roman Empire. The inroads of northern barbarians were made easy by the admirable Roman roads, and the shipping facilities of Roman commerce. The religious and sectarian riots of the orthodox adherents to the Nicene Creed of the Roman Church, with the Arian dissenters encouraged by the Eastern Emperors, and the reactionary forces of pagan philosophy, kept the Mediterranean races in a perpetual state of internecine and municipal warfare. Depopulation was due to internal degeneracy as much as to foreign invasion. The population capacity of Europe reached its lowest level about the time of Charlemagne, the thin veneer

of the Frankish empire covering a state of rottenness barely supporting the meretricious polish of romantic and ecclesiastical literature which shed a phosphoric gleam of light upon the age. The average population density of mediæval Europe was probably half that of the British Isles during the same period. Stagnation reigned under the Romish Church. Literature was confined mainly to Churchmen and monastic inmates. The great universities were entirely governed and taught by ecclesiastics. The bulk of the writings of the eight centuries prior to the fifteenth, consisted of ecclesiastical works of no literary merit or useful purpose, most of them what are now denominated literary forgeries, that is, books ascribed to authors who had been dead centuries before, in order to give their reactionary doctrines the authority of the great names of antiquity. Public works and progress in arts, crafts, and science were absolutely neglected. Warfare was unceasing all over Europe, and in the profession of arms lay the only safe career for human life.

Generation of the human species had to adapt itself to the fixity of population capacity. A social and economic state had been evolved from the fall of the empire which was peculiarly adapted to the non-progressive numbers of the people. Under normal conditions in modern times the increase of population is usually at the rate of 1 per cent. per annum, by the excess of births over deaths. The death-rate is usually 20 per thousand where the birth-rate is 30 per thousand. Both these rates are indicative of a state of society by no means healthy or wealthy, and is consistent with extreme hardship being the lot of a large proportion of the people. Twenty per thousand per annum is a very high death-rate, and 30 per thousand a low birth-rate. In the poorest countries of Europe and Africa, while the death-rate is normally much greater than 30 per thousand, the annual birth-rate amounts to 45 or 50 per thousand. In mediæval Europe the death-rate was increased by various factors at present practically non-existent; as the absence of sanitation, the non-existence of surgical or medical science, cold-blooded cruelty to women, the ecclesiastical theory of sin and

punishment, constant warfare with the high percentage of combatants killed in hand-to-hand fighting; plague, pestilence, and famine; murder, assassination, duelling, and the succession to heritages; and the low quality of food and accommodation, with greater exposure to weather and accidental casualties. The birth-rate was kept down in the more comfortable classes by ecclesiastical superstition, the monastic and conventual vows of chastity, the breaking up of family ties by war and slow travel, and by the fear of poverty.

Racial degeneracy was fostered in mediæval Europe by the highest birth-rate being invariably confined to the lowest classes of humanity. The feudal system discouraged large families in the landed aristocracy. The Church and the army claimed younger sons, and the convent all daughters for whom aristocratic marriages could not be arranged.

In mediæval Europe the women of the middle and lower classes were treated worse than the beasts, as a cursory inspection of the whipping posts, branks, and other instruments of judicial torture for women, preserved in the museum at The Hague, testifies to this day. It is by no mere accident that the voice of mediæval woman is not heard in literature or history during the long course of those hideous eight centuries. The birth-rate of children depends wholly upon the life condition of the mothers, and where life is a burden of shame and misery for motherhood, the cradle and the home can only be the scene of desolation. The conditions of domestic life among the white races of mediæval Europe were such as to make it a wonder that even a remnant of these races survived to a more enlightened age.

Another source of information as to the enormous volume of human suffering which kept population stationary in mediæval Europe is the later emergence of the Sarmation race from barbarism than the Western nations of the Continent. The lot of women in Russia, the barbarous public whippings continued into the last century, the heavy hand of clerical fanaticism upon "the temptation of Saint Anthony," the absence of all domestic comfort, not to say refinement, in the

wretched huts provided for motherhood in a rigorous climate, the denial of education, and the suspicion of the imaginary crime of witchcraft on the least evidence of intelligence entailing the most fearful penalties of physical suffering, make up a picture of European life which accounts with the heavy death-rate for a stationary population. The death-rate itself was chiefly due to the excessive mortality in infants. The mortality during the first year of life was as high as in any modern English workhouse. The normal rate of infant mortality among the poorer classes in England is said to be 120 per thousand which die before they are one year old. In some workhouses the mortality of a similar class of infants rises to above 500 per thousand. On the low-lying lands of West Africa, where mosquito and other insect plagues are rife, 90 per cent. of the black babies do not survive their first year. In Egypt a similar fate befell the infants during the degradation of the people under the Albanian misrule of the last century, their fellaheen mothers not even troubling to sweep off the flies that settled on their eyes and caused ophthalmia and blindness. The degradation of women by ill-treatment not only checks motherhood, but causes a fearful amount of infant mortality.

Christianity as developed in Rome did nothing to improve the lot of women in Europe. Their position in pagan Rome, in heathen Germany and Scandinavia, and even in superstitious Sarmatia, had not been that of the temptress to sin, the embodiment of the world, the flesh and the devil. A mere animal abstinence from the indulgence of sexual instinct was elevated by monkish influence to a so-called chastity, and deemed the highest virtue of humanity. With the utterly useless, painful, and degrading denial of the passions of both sexes, the highest graces developed in human nature were nipped in the bud. Courtesy, love, mercy, gentleness, the whole code of altruism, was stunted without the social basis upon which it is invariably erected, namely, the pure, devoted, enthusiastic love of the sexes. Chivalry, a code absolutely apart from Christianity and laughed to scorn by Cervantes and

the priests, kept alive in a high-bred aristocracy the virtue of sex, and preserved a starting point for the resuscitation of home and family life, on the deliverance of men from the dogmatic slavery of the Church.

The Church took marriage entirely under its wing, blessed marriage without love, and banned love without marriage. The sacrament of the Church was indissoluble even by the Church itself, and children begotten by no fault of their own prior to the theatrical wedding ceremony of the Church, were deprived of all legal rights of maintenance or inheritance, and laid under a moral and social stigma as bastards, which lay almost as heavily upon them as excommunication.

Much of the early teaching of the Church still dulls the conscience of society. The *mariage de convenance* is arranged with no biological or sympathetic affinity essential to the lives which are to proceed from it. The hypocrisy of the ritual is carefully preserved in the lying phraseology of the man, "with all my worldly goods I thee endow," when at any moment the wife's home may be broken up by bailiffs seizing the furniture and turning the family out-of-doors for the husband's debts. Until recently the wife's goods became the absolute property of her husband unless guarded by pre-nuptial settlements under trust, for no married woman could legally possess property. The inhuman laws and customs disabling European women originated entirely from the Church or its oriental teaching of the laity. Yet on the same natural principle that a dog comes to heel more promptly and abjectly the more severely it is whipped by its master, so women are still the main supporters of the Church which has always ruthlessly persecuted and degraded them in the most essential functions of humanity. It remained in the fifteenth century, and still to a considerable extent remains, for men to deliver marriage, the family, the woman, and domestic life from the degrading influence of the same ecclesiastical falsehood as served to depopulate Europe from the seventh to the fifteenth century to the population capacity of a continent destitute of public works and public peace.

CHAPTER IV.

THE SEVENTEENTH AND EIGHTEENTH CENTURIES.

Discoveries—Voltaire's Estimate—British Isles—Beginning of Emigration—The Renaissance—Effects of Renaissance—Rise of Coal Trade—Industrial Use of Coal—England in Eighteenth Century—British Isles, Eighteenth Century—American Trade—Leasehold Farming—Carrying Trade—Value of Annual Produce—French Revolution.

TOWARDS the end of the fifteenth century, the close of the Wars of the Roses in England, the hundred years' war in France, and a lull in the devastation of the Low Countries, brought with them the first glimmer of the light of modern civilisation. The old Greek and Roman classics began to be read, apart from the dogmas of Christianity. The art of printing books with movable type was invented, and the Bible and other classics issued from the printing press to the laity. The revival of thought, and the higher standard of intelligence applied to the material business of life, turned men's minds to improving the mechanical and agricultural arts. Although the improvement of roads and communications did not engage the attention of statesmen and engineers for three centuries later, it was at this time that Columbus discovered the New World, and the way to the Far East was revealed by Portuguese navigators. Notwithstanding the destructive wars of the next two centuries, the population capacity of Europe increased to an average density of 29 to the square mile. The estimate, made by Voltaire and adopted by Gibbon, shows the extreme variation of population

capacity, according to the state of civilisation and public works of the various countries :—

EUROPE ABOUT THE YEAR 1700.

Country.	Area.	Population.	Density. Persons per Square Mile.
	Square Miles.	Millions.	
British Isles ..	121,000	8	66½
France	205,671	20	97
Italy	108,523	10	92
Low Countries ..	24,964	4	160
Germany	457,000	22	48
Hungary	130,000	4	31
Spain & Portugal .	215,260	8	40
Poland	284,000	6	21
Greece & Turkey .	225,200	6	26
Sweden	170,000	4	23½
Denmark & Norway	141,836	3	21
Russia-in-Europe .	1,616,546	12	7½
Europe ..	3,700,000	107	29

The population of the British Isles had not attained to the average density of the Roman Empire, and public works had not yet been commenced, although a considerable advance had been made in the economic condition of the country with the Reformation. France, the Low Countries, Italy, and the Free Cities of Germany, all possessed a higher civilisation than England, and the spread of trade and the manufacturing arts to these Islands, with a large influx of foreigners, gave the people that infusion of intelligence and new blood which led to their rapid subsequent development. The pioneers of British discovery and trade, in most individual instances, were of foreign nativity or extraction ; and the revocation of the Edict of Nantes enriched the British Isles with the most useful element of population that ever reached its shores.

In France, Italy, and the Low Countries public works had made a fresh start in the great embankments, canals, and roads ; and agriculture had begun its

struggle with the feudal system upon a commercial basis of tenant farming. Manufactures and the arts and crafts enriched the towns, and over-sea trade ministered to the luxury of the land-owners and governing classes of Western Europe. The pressure of vested interests upon the growing middle class due to lack of opportunity had begun to develop emigration, chiefly with a view to the creation of plantations or great estates in the unsettled lands of the New World. The Dutch, English, French, Spaniards, and Portuguese established colonies in the West and trading factories in the East, for the enrichment of those landless but intelligent scions of the aristocracy who could find no opening in the feudal countries for the accumulation of capital. The revival of national statesmanship in Austria, Spain, and France—with the improvements in the art of navigation which made the power of the winds available for transport, the mariner's compass, and astronomical instruments and timepieces—opened up the seas and oceans of the world to European enterprise. The continued comparative neglect of the development of inland communications was compensated by oversea trade—to an extent which so far replaced the organisation of the ancient Roman Empire as to bring Western European population capacity nearly abreast of the four earliest centuries of the Christian era.

The greater part of the area of Sweden and Norway and the forests of Germany and Russia were always inaccessible to settlement. But the people on the cleared and level portions of these countries kept pace fairly with those on the more settled and accessible areas of Europe in learning and arts. The de-nationalisation of Italy and the German States, by the Church, the feudal system, and the municipalities, retarded their progress materially; while individual development in intellectual research made invaluable advances in the production of a few of the greatest men of the world's history.

The civilisation of the Roman Empire culminated in the production of a dead level of intellectual mediocrity, in which the entire learning of the leisurely classes

consisted of the metaphysical quibbling of the Christian sects; literary work confined itself mainly to the production of pious forgeries, romances, and poetry; and invention and discovery were banned as sorcery. The flood of military and feudal settlement with the ecclesiastical superstition which had engulfed the Roman world obliterated the Latin civilisation and the classic learning of Greeks and Romans. It required the re-establishment of communications, with the renaissance of classic art and literature, to increase the population capacity of the low countries of Europe to nearly the ancient Roman standard and to provide the intellectual opportunity for Leonardo, Galileo, Copernicus, Bacon, Newton, and the French philosophers. The fresh start given to the minds of the inhabitants of Europe by these and other eminent thinkers, gradually aroused the more thoughtful and intelligent to the development of trade and manufactures.

In the colder climate of Northern Europe the density of population could never have equalled the average of the Roman Empire without the use of coal as the chief domestic fuel. Beginning in the latter half of the thirteenth century, the coal trade between Newcastle and London alone exceeded, in the year 1770, all the rest of the British shipping trade. Up to the end of the seventeenth century coal was supplied for little else than household purposes, but some idea of the large extent to which it was thus used is given in the quantities shipped in the year 1704, namely, from Newcastle 473,080 tons, and from Sunderland 174,264 tons, in addition to the quantities used locally and transported (untaxed) over land. The industrial applications of coal commenced with glass-blowing in the year 1619, on the banks of the Tyne, and in 1635 King Charles I. prohibited the importation of foreign glass.

The inland transportation of coal, amounting probably to many million ton-miles, as it was untaxed by land while heavily taxed by sea, led to the formation of roads and canals. The seventeenth and eighteenth centuries saw a great development of inland communication for transport, and with the improvement of roads came the

introduction of posting and mail coaches. Tramways of timber and stone were laid in connection with the collieries, and were familiar to engineers at the end of the eighteenth century. The industrial applications of coal, however, may be said to have begun on a large scale with the invention of coke, which took the place of wood charcoal in the smelting of iron between 1730 and 1735, when Mr. Abraham Darby, of Coalbrookdale, in Shropshire, succeeded in smelting with coke. The iron trade of Great Britain had then sunk to a low ebb owing to the high price of timber used in smelting, and the invention of coke with, subsequently, the hot-blast furnace, placed the British Isles, for a century and a half, at the head of the iron trade of the world.

The eighteenth century saw the introduction of steam power in England. Its first application was to the drainage of mines by pumping, but towards the close of the century its application in factories filled with ingenious mechanical inventions for economising labour in manufactures, increased the productiveness of intelligent labour, and with it the population capacity of the country.

Improvements in agriculture and the extension of oversea commerce were great factors in the increase of the population capacity of England and Wales during this century. The population in 1690 was $5\frac{1}{2}$ millions or 95 to the square mile, nearly equal to the density of population in France at the same date. In 1801 the census returns were 8,892,536, a density of 153 persons to the square mile. Roads and canals had been formed during the century, and the general state of civilisation had advanced in the meantime to a higher level than the average of the Roman Empire. Probably the same areas of ancient Italy or France, the more prosperous portions of the Roman Empire, were in their day in a state of settled industry equal to that of England about the end of the eighteenth century; but it must be kept in view that the entire constitution of England differed from the Roman slave-owning organisation. Free labour of the white races is of much greater productive value per head, or per hand, than slave labour; and

the labour organisation of Western Europe during the seventeenth and eighteenth centuries, by apprenticeship and guilds, trained a great army of skilled artisans and peasantry for the development of productive industries. Statesmanship and the organisation of Government lagged behind, being confined chiefly to international warfare and interference with trade by burdensome taxation, but the automatic social organisation of the English people permitted by the growth of civil and religious liberty exercised many of the essential functions of government organisation.

The progress made in England during the eighteenth century was more healthy from a national point of view than in any like period, before or since. The manufacturing industries and agriculture were organised on an independent personal, or family, basis, the chief industries being domestic—as hand-loom weaving, small agricultural holdings, dairying, rearing stock—with small traders in town and country.

Ireland, a country which has always been dependent upon agriculture and its attendant industries for the development of its wealth, advanced in population more rapidly than England or any other country during the same interval, from about 1,500,000 in 1690 to 5,320,000 in 1801, that is, from a density of 45 persons to 164 persons to the square mile. The density of population in Ireland in 1801 was thus considerably greater than that in England. The sound nature of the progress made in England is proved by the gallant fight the country made for the liberties of Europe at the close of this period, and the enormous burden of taxation under which it never faltered in its economic development.

The same period saw the development of the American Colonies, and the foundation of the progressive republic of the United States. The population capacity of England at that time, notwithstanding the civil wars and the separation, was much enhanced by the outlet for trade and enterprise afforded by America to the British people. America afforded an enormous market for the surplus manufactures and the capital of Great Britain. For instance, about 96,000 hogsheads, or

24,000 tons, of tobacco were annually purchased in Virginia and Maryland with a part of the surplus produce of British industry. The consumption of tobacco in Great Britain was probably not more than 14,000 hogsheads per annum. The remaining 82,000 hogsheads, therefore, were again disposed of in foreign markets to the employment of British shipping and seamen, and the substantial profit of British traders. Most of the American capital and labour was at that time employed in agriculture, and a profitable business was then carried on by the British, even in the supply of slaves from Africa to America. The whole of the oversea trade, and much of the American retail trade, was supplied with capital at enormous profit from England. The shock of the disruption of the Empire, by George the Third, was insufficient to stem the tide of emigration and trade, the blunders of statesmen being more than counter-balanced by the active commercial genius of the people.

The introduction of the commercial system of leasehold farming in comparatively small holdings had modified the feudal anarchy of the middle ages so far as to permit of the improvement of agriculture to the English land of the eighteenth and nineteenth centuries. But allodial tenure by the actual cultivator was unheard of, except in a few backward mountainous districts like Cumberland. The result was the lack of permanence of agricultural industry shown on the abolition of the corn laws. The high cost of sea transport in small bottoms was a sufficient protection for the British farmer, even before the increase of corn duties, and these were imposed mainly for the benefit of the land-owning aristocracy by increasing rents. The large land-owners were the dominant power in both Houses of Parliament prior to the Reform Act of 1837.

So universal and thoroughly established was the system of the exaction of rent for land that Adam Smith adopts this pernicious institution as his standard of land values, although he delivered the world from the erroneous idea that land was the cause of wealth to the truth as to labour being its source. In his time "the land and labour of Great Britain produced generally

more corn, woollens, and hardware than the demand of the home market required. The surplus part of them, therefore, was sent abroad, and exchanged for goods for which there was a demand at home."

The carrying trade of the world has always fallen into the hands of the wealthiest nations. Wealth, or capital, accumulated in the hands of an enterprising people, is not the result of the carrying trade but has been demonstrated to be its cause. Surplus products and capital which cannot be as profitably used or employed in the country of their origin must exist, or no system of bounties or compulsion will serve to create foreign trade. This was pre-eminently the position of the Low Countries, Holland and Belgium, during the two centuries now under review. At the end of the seventeenth century their population was as high as four millions, or 160 persons to the square mile. Their civilisation and wealth were evident in the splendid works of sea embankments and internal navigation by their numerous drainage canals and large rivers; their great manufacturing cities, and their immense colonies and foreign trade factories. **"Holland, in proportion to the extent of the land and the number of its inhabitants, was by far the richest country in Europe, and accordingly it had the greatest share of the carrying trade of Europe."* England was only a problematical second to Holland in wealth or carrying trade; both France and Spain were sometimes predominant, and the minor States of Italy, and even Portugal, were important rivals in Eastern and South American trade. The density of population was a fair index of the comparative wealth and commercial power of the European nations, and this in turn bore an evident relation to the more or less democratic, political and social organisation of the respective countries.

The arrival of the Western nations of Europe, towards the close of the eighteenth century, at a stage of internal development which necessitated in the then state of economic science the export of surplus products to foreign and colonial markets, was naturally the cause of

* *Smith's "Wealth of Nations,"* chap. v., page 153.

intense mutual jealousy and rivalry. Any cessation of surplus production reduced the population capacity of the country, throwing the working classes out of employment and diminishing capital. **“The riches, and so far as power depends upon riches, the power of every country must always be in proportion to the value of its annual produce, the fund from which all taxes must ultimately be paid. The great object of the political economy of every country is said to be to increase the riches and power of that country.”*

During the last quarter of the eighteenth century France, from various causes, but chiefly owing to the rotten system of farming the taxes but not the land, had fallen behind its own standard of production. Some of its most valuable industries had been driven out of the country by unwise politico-religious persecution. The loss of its Canadian Colonies and East Indian possessions had further diminished its oversea trade. The abuse of the anarchical feudal system of tenure of land in huge estates, without the leasehold system of farming by which similar institutions were tempered in England, placed France at a great economic disadvantage to its most pressing rival. Accordingly, although carrying more than double the population of the British Isles, with an equal density, France was at this time in a weaker political position. The natural remedy for such internal disorganisation was the culmination of the distress of the people in revolution, which swept away at a blow the landed aristocracy with their title deeds. The economic effect of the redistribution of the ownership of the land, in small holdings with allodial tenure, under the code Napoleon, was immediate.

Although the French people have always taken a leading position among the nations in the development of art and science, the drastic remedies adopted for the corruption of their political constitution and land settlement led their economic advance more by way of agricultural improvement and the reform of land law, than by the extension of manufactures and external trade.

* *Smith's "Wealth of Nations,"* chap. v., page 153.

CHAPTER V.

THE NINETEENTH CENTURY.

Factories and Companies—Coal and Iron—Coal Production—Influence of Machines—Influence of Public Works—British Trade—Home Trade more Valuable than Carrying Trade—Canals and Railways—Value of Speed in Railways—Manchester Ship Canal—Motor Traffic—Motor Roads—Efficiency of Shipping—Hydraulic Slipways.

THE development of physical civilisation in the British Isles advanced during the nineteenth century at a much greater pace than the increase of population capacity of the country. Novelties in public works, and labour-saving devices in the arts of production, were introduced with a rapidity and continuous sequence which left the pitiful devices of the *laissez faire* school of statesmen very far behind in the organisation of public works and administrative legislation; with the results that production frequently outmarched distribution, heavy permanent burdens of interest or profits on bogus or wasted capital were laid upon the nation to absorb the wealth created by mechanical genius, and much suffering and emigration was caused by over-production and unemployment.

The nineteenth century commenced in Britain with the most signal outburst of great inventions ever witnessed in the world's history. The intelligence and labour of the people, diverted from the improvement of the land by the concrete establishment of the commercial system of tenant farming at a fixed annual rental, payable to the former feudal proprietors, was applied to the development of manufactures on the factory system by means of machinery and the division of labour. Public works, for marketing, were inaugurated on a novel principle and

a gigantic scale, by joint stock capital under the control of companies armed with administrative functions by special legislation. The factory and the company employed the inventor to increase the output of labour and put produce on the markets with the utmost economy and despatch. As the production of one man was increased by labour-saving devices to that of ten, the market for the products of ten men was opened up by increased facilities of locomotion and trade.

The enumeration of some of the leading improvements in production and communications will serve to illustrate, if not to prove, the theory of the increase of population capacity by mechanical improvements. The production of pig-iron in Scotland rose from 20,000 tons in the year 1820 to 1,158,750 tons in 1864. In 1829 the production of one ton of pig-iron at the Clyde Ironworks required the coke of 8 tons $1\frac{1}{4}$ cwt. of coal, whilst in the following year the introduction of air heated to 300° F. brought down the consumption per ton of pig-iron to 5 tons $3\frac{1}{4}$ cwt. Eight hundredweights of coal were consumed in heating the blast, so that the actual saving of coal per ton of pig-iron was $2\frac{1}{2}$ tons, or 31 per cent. This saving doubled the output of iron per labourer in the coal and iron industries. Three years later, when raw coal had come to be used instead of coke, 1 ton of pig-iron was made with 2 tons $5\frac{1}{2}$ cwt. of coal, with the addition of the same 8 cwt. for heating the blast, a total saving of 70 per cent.; and one man could now do as much work in the production of iron as six men did four years before. A market was created in the applications of iron to machinery and public works, so that in Scotland alone the consumption of coal in the pig-iron industry increased, notwithstanding the saving per ton, from 161,250 tons in 1820 to 2,621,671 tons in 1864.

The increase of production of coal and iron in Scotland in this interval of 44 years would, without mechanical and scientific improvements, have required the labour of 164 men for every one employed in the year 1820. With the improved methods only one-sixth of the men were required, but even on this reduced ratio the

population capacity due to the coal and iron industries increased by 27 times.

It is estimated that in Great Britain about ten million tons of coal were raised in a year, at the beginning of the nineteenth century. The continental production at that time was exceedingly small, the backwardness of manufacturers and the large expanses of forest land having delayed the necessity for turning to subterranean fuel. Within a short time after the conclusion of the great war in 1815, steam engines were rapidly supplanting or acting as auxiliaries to water power, and the coalfields of Europe became the scene of research and activity. The facilitation of traffic by means of steamboats and railways was required to start modern European progress.

Between 1829 and 1835, locomotive engines, running on wrought iron rails, and coasting and ocean steamships, were proved in Great Britain and America to be a mechanical success; which led to their commercial exploitation throughout the world, with a rapidly increasing demand for coal. In 1803 the invention of coal gas, and later on the distillation of the paraffines, led to the increased output of coal for purposes of illumination. The subsequent developments of electrical science and its applications to power and lighting made a further demand upon the production of coal, in no way diminishing its earlier applications by steam, gas and oil.

COAL PRODUCTION OF GREAT BRITAIN.

Year.					Total.	Of which Exported.
					Tons.	Tons.
1850	..	..	..	..	42,000,000	Unknown.
1854	..	..	..	..	64,000,000	4,309,255
1864	..	..	..	..	92,787,873	8,063,846
1874	..	..	..	..	125,043,257	13,927,205
1884	..	..	..	..	160,757,779	23,350,230
1889	..	..	..	..	176,916,724	28,956,445

At the end of the nineteenth century the coal production of the United Kingdom had arrived at an annual

output of 200,000,000 tons, of which 50,000,000 tons were exported. These quantities continue on the increase, and it is already the subject of calculation how long the national coal cellar, which can never be replenished, will hold out. Its exhaustion, though gradual, will become evident in a raising of prices, which will fetter the whole of the industries dependent upon the supply of fuel. These include the mechanical and manufacturing industries, railway and steam transit, as well as the agricultural pursuits and domestic life of the country.

The capital invested in machinery for textile working, paper-making, printing, and most manufacturing processes is much more secure and permanent in returns than that invested in the more gradually progressive contrivances for the production of power or the carrying trade. The Fourdriniere paper machine is the same design to-day as the first erected eighty years ago.

Mechanical invention during the century has exercised a progressive influence in every sphere of life. In 1880, before the expiry of the original patents, * "there were known to be five million sewing machines at work, doing as much labour as sixty million women could do with the needle. There were also 3,100 Boston boot-making machines in various parts of the world, turning out 150 million pairs of boots yearly, one man being able with this machine to produce from 240 to 300 pairs daily. These two inventions have greatly reduced the cost of clothing and of boots and shoes. Agricultural machinery has effected a similar saving of labour. In fact, there is no branch of industry that has not in recent years felt the benefits resulting from mechanical invention and cheapness of production."

For the first thirty years of the century little progress was made in Europe in public works. Steam and machinery in Britain gave that country a powerful start, and it came rapidly to the front as the world's greatest trading nation. The productive capacity of the people increased rapidly, and great commercial progress was made; but the difficulties of communication and transit and obstructive political policies,

* Mulhall's "History of Prices," p. 56.

together with the effects of the wars which devastated and crippled Europe, held commerce in bonds, and it made no advance. Then a new inspiration seemed to take possession of the master minds of the age, and in rapid succession were seen the introduction of railways, steamboats, harbour improvements, the penny post, telegraphs, oceanic canals, telephones, tramways, tunnels, irrigation, the extension of the mining of gold and silver and other metals throughout the world, and a host of minor discoveries and inventions that cheapened supplies and increased productive power in every department of trade. The noble roads of the Roman Empire, which had degenerated in fifteen hundred years of neglect to mere tracks, were replaced and extended throughout Europe with hard and level macadamised highways. The slow traffic of the canals was replaced with the rapid facilities of railways for the interchange of commodities, as well as for personal travel. The poorest pedlar could travel with a speed and comfort unknown to the proudest Emperor of Rome.

Owing mainly to priority in entering the field of the modern development of manufactures and commerce, the United Kingdom still maintains the first place among trading nations. As about half the world's trade is represented on the British table, the development of modern commerce is fairly indicated by its imports and exports :—

Year.					Imports. Total.	Exports. Total.
1760	..	..	..	..	£ 10,683,000	£ 15,781,000
1785	..	..	..	..	16,279,000	16,114,000
1800	..	..	..	..	30,570,000	58,318,000
1830	..	..	..	..	46,300,000	46,819,597
1840	..	..	..	..	67,492,000	65,180,430
1850	..	..	..	..	100,450,000	93,252,000
1870	..	..	..	..	303,257,000	244,079,000
1887	..	..	..	..	362,227,564	281,262,885
1896	..	..	..	..	441,808,904	296,379,214
1900	..	..	..	..	523,075,163	354,373,754
1906	..	..	..	..	607,888,500	460,677,818

From a total import and export trade in the year 1760, amounting to a value of 26 millions sterling, the space of 148 years has seen the rise of British trade to 1,100 millions, an average annual increase of $27\frac{1}{2}$ per cent. About one-fifth of the export trade, however, consisted of imports re-exported. Of the remaining four-fifths, the raw materials for about half the manufactured produce were also imported, so that much of the value stated is only an incident of carriage. The population capacity of the country could not, therefore, be expected to increase in the ratio of its trade, its productive capacity being only an inconsiderable fraction of its foreign trade. Still the home market supplies should be added to the foreign trade so far as the produce was grown and manufactured in the country. As these quantities are quite inaccessible, however, trade figures can be no indication of population capacity further than as an indication of general prosperity.

“The capital employed in the home trade of any country,” says Adam Smith, “will generally give encouragement and support to a greater quantity of productive labour in that country, and increase the value of its annual produce, more than an equal capital employed in the foreign trade of consumption; and the capital employed in this latter trade has, in both these respects, a still greater advantage over an equal capital employed in the carrying trade.” Over-sea trade is, therefore, the smallest trade factor in the increase of population capacity, the most important factor in which is the development of inland communications. The shrinkage of 10 per cent., or £101,482,723, in the over-turn of the foreign trade of the United Kingdom in the year 1908 was coincident with, and no doubt contributed to, produce severe unemployment of labour; but the remedies adopted, consisting in pushing forward the undertaking of public works, indicate that the cessation of public works had more to do with the severity of that calamity than the temporary check to foreign markets.

The heavy goods traffic of the country had to depend up to 1835 entirely upon small coasting vessels beating slowly along under sail, and upon barge traffic along

inland canals, towed by horses at a maximum speed of three miles an hour. The introduction of railways with locomotive haulage put the barge canals almost entirely out of use. It is generally assumed that this was the result of a deep-laid plot on the part of the railway companies to get rid of competition. It was really the natural consequence of the comparative traffic capacity of the canals and railways. The traffic capacity is the number of tons of goods carried a certain distance in a certain time, and is measured in, say, ton-miles per annum. Taking a train of four 100-ton barges towed along a canal at three miles an hour, and comparing it with a train of goods trucks carrying 400 tons at a speed of thirty miles an hour, the railway gives ten times the traffic capacity of the canal. The interruption of locks on the canal diminishes its traffic capacity still further and adds to its cost. Steam haulage adds little to the speed on canals without enormous outlay upon masonry sides or banks.

The increasing traffic of the United Kingdom during the nineteenth century could not have been accommodated on the canals, and probably the home market and producing centres in inland towns would not have increased if railways had not been introduced. Thus the introduction of railways was the most essential factor in the continued increase of population during the latter half of the nineteenth century. The construction of such a vast system of public works as the railways in itself provided productive labour for a large additional population.

In the distribution of goods for the home markets the speed of railway transit has revolutionised the trade of the country. For instance, the distribution of fresh fish, the most perishable of produce, is conducted entirely by rail; the chief centres in England being London and Birmingham; in Scotland, Glasgow; and in Ireland, Dublin. The fish are landed from the North Sea fishing grounds at Aberdeen, Yarmouth, and other railway termini, and immediately conveyed by rail to great central markets in London and Birmingham, whence they are distributed by rail to both

inland and coast towns all over England. As a railway centre London enjoys its supremacy in the fish trade, only a small proportion of its supplies arriving by the Thames.

Such great inland towns as Bradford, Leeds, Sheffield, Leicester, Birmingham, Manchester, Coventry, Rugby, and Northampton owe their continued existence and advance to railway communication. Bradford perfected broadcloth from the wool sheared in the neighbouring northern counties, but had to retain and develop its industry by working in wool from Australia to clothe the *élite* of the world as well as of England. Sheffield had to fetch its ores from Sweden and other foreign countries and supply the wide world with cutlery. All these towns are dependent, for both buying and selling, upon railway more than upon oceanic communication. The advantage of direct contact with shipping is so great in cheapening freights by carriage in large bulk, that Manchester paid 18 millions sterling for a canal. That such enormous capital expenditure on 32 miles of inland communication should be successfully undertaken by a single inland city is the best proof that for continued prosperity, with increasing population capacity, the extension of public works must not cease. The completion of the railway works of the country during last century has necessitated the inception of new enterprise in the system of inland communications.

London has extended railway communication by an expensive system of deep tunnels, "the tubes," which appear to have arrived at their final limits. The whole of the cities of the Empire are laid with electric tramways, which also appear to be approaching completion. The advent of the petrol motor car has re-opened road locomotion, reviving the traditions of coaching days, and calling for the inception of more modern public highways adapted for quadrupled speed and greater durability under heavy traffic. Petroleum and its products are attracting attention as a source of power supplementing coal, which may some day supersede the waning supply of the latter. The highways for high-speed traffic must be public works undertaken by a Government

department, private or municipal enterprise being incapable of undertaking a national work of such far-reaching scope. Motor roads must be straight and level as a railway. To accommodate pedestrian, cycle, and horse traffic the cross section would naturally revert to the ancient Roman road, the central way for slow traffic raised considerably above the up and down motor ways, with frequent over bridges for access to the central way, and under bridges for communication between the motor ways. These roads will form a new system of national public works, giving employment for many years to a large population, and increasing permanently the population capacity of the country.

The heavy inland traffic of the country is within sight of increased development by a novel combination of the principles of land and water carriage. The economy of water carriage is mainly due in modern times to the enlargement of the unit of bulk. The increase of the average size of British vessels in the interval of 30 years, from 1850, results in the increase of efficiency, allowing one seaman in 1880 to carry as much as four seamen carried in 1850. The steam power required per ton carried is equally reduced by the increased tonnage of the vessel. The resistance to the way of a vessel through the water consists of skin friction. This factor varies with the extent of the skin only, and this area increases as the square of the mean linear dimension, while the capacity increases as the cube of the same. A ton of goods may be carried in a single vessel of 10,000 tons for one-tenth of the cost by 100 vessels of 100 tons each. The usual freight rate by large steamers crossing the Atlantic is only one-twentieth of a penny per ton-mile. The same goods are charged two-pence per ton-mile in six-ton trucks on English railways.

The hydraulic slipway is a multiline railway for carrying sea-going vessels over land, kept afloat on hydraulic cushions lining suitable flexible cars or cradles, running on a large number of bogie trucks arranged in two trains on each constituent line of the railway. It runs over curves and gradients like an

ordinary train, with locomotive, cable, or electric haulage. It will combine the speed and traffic capacity of the railway with the low freight rates of the sea-going vessel. Probably the enterprising town of Croydon, the scene of the first ordinary railway at the beginning of the last century, will see the first hydraulic slipway bring 100-ton coal barges from the Thames to its dock and gasworks, early in this century. The system was exhibited working on the grounds and canal at the Edinburgh Exhibition of 1890, carrying 38-foot boats with passengers; where it was awarded the diploma of honour and gold medal on the report of a jury consisting of Sir Edward J. Reed, K.C.B., former Chief Constructor of Her Majesty's Navy, and Mr. W. R. Kinipple, M.Inst.C.E.

CHAPTER VI.

THE UNITED KINGDOM.

Population Table—Nineteenth Century England—Irish Suffering—Occupations—Fall in Agriculture—Non-productives—Land Settlement—Land Distribution—Land Values—Small Holdings—Associations—Additional Population—Irrigation—Changes of Occupation—Unemployed.

THE POPULATION OF THE UNITED KINGDOM AT EACH DECENNIAL CENSUS OF THE NINETEENTH CENTURY.

—	1801.	1811.	1821.	1831.
England & Wales	8,892,801	10,164,256	12,000,236	13,896,797
Scotland ..	1,608,420	1,805,864	2,091,521	2,364,386
Ireland	5,319,867	6,000,000	6,801,827	7,767,401
Isle of Man and Channel Islands	82,810	85,952	89,095	106,567
Soldiers & Sailors abroad ..	442,013	365,554	289,095	246,024
United Kingdom	16,345,646	18,421,626	21,271,774	24,381,175

—	1841.	1851.	1861.	1871.
England & Wales	15,914,148	17,927,609	20,066,224	22,712,266
Scotland ..	2,620,184	2,888,742	3,062,294	3,360,018
Ireland	8,175,124	6,552,385	5,798,564	5,412,377
Isle of Man and Channel Islands	124,040	143,126	143,447	144,638
Soldiers & Sailors abroad ..	202,954	212,194	250,356	216,080
United Kingdom	27,036,450	27,724,056	29,320,885	31,845,379

THE POPULATION OF THE UNITED KINGDOM AT EACH DECENNIAL CENSUS OF THE NINETEENTH CENTURY—*continued.*

—	1881.	1891.	1901.
England and Wales ..	25,974,439	29,002,525	32,527,843
Scotland	3,735,573	4,025,647	4,472,103
Ireland	5,174,836	4,704,750	4,458,775
Isle of Man and Channel Islands	141,260	146,399	151,439
Soldiers and Sailors abroad ..	215,374	250,000	400,000
United Kingdom	35,241,482	37,637,371	42,010,160

THE DENSITY OF POPULATION IN AVERAGE NUMBER OF PERSONS PER SQUARE MILE AT ABOVE DATES.

—	1801.	1811.	1821.	1831.	1841.	1851.
England and Wales	153	175	206	239	274	308
Scotland	53	60	70	79	87	96
Ireland	164	185	209	239	251	261

—	1861.	1871.	1881.	1891.	1901.	
England and Wales	345	390	446	501	563	..
Scotland	102	112	125	134	149	..
Ireland	178	166	159	145	137	..

At the beginning of the century, notwithstanding the drain upon the United Kingdom in men and money, due to the great wars which continued for fifteen years, the density of population of both England and Ireland was $2\frac{1}{2}$ times the average of the Roman Empire of which they had formed an insignificant part. The standard of civilisation was decidedly higher than in the most flourishing states of the empire, for slavery no longer existed in the British Isles, a greater measure of political and religious liberty was enjoyed by the people, and the arts and crafts of industry were developed considerably in advance of the Latin civilisation. The

intellectual life of the people had obtained a fresh start from new methods of philosophical and scientific research, and although literature and popular education were at a low ebb, the reign of mediocrity had ceased to deprive humanity of the hope of progress.

Agricultural development had reached its culmination under the commercial system of leasehold tenant-farming, and the home market was entirely supplied by the produce of the country under high protective duties against foreign produce. The chief industries were agricultural and domestic. Ireland more than held its own with England in agriculture and linen weaving prior to the development of cotton manufactures. In both countries the administration of land tenure under British parliamentary rule has steadily degenerated, and the unparalleled progress of England in population capacity throughout the century was due wholly to the development of mineral and manufacturing industries. In this Scotland has fully shared the prosperity of England, while Ireland has suffered the full consequences of the agricultural degeneracy of the nation, without any share of its relief or compensation by manufactures and trade.

The sudden drop in the population capacity of Ireland, of 20 per cent. in the decade 1841-51, was accentuated by, though not wholly due to, the potato famine of 1849. The tenure of the land had been rapidly changed through the changes of proprietorship induced by spendthrift habits of Irish proprietors, and the eagerness of the *nouveaux riches* created by the factory system in western England, to become landed gentry. Rack-renting of tenants-at-will, by what were alien if not strictly speaking foreign purchasers of the land, took the heart out of the native Irish peasantry. Their cottage industries were ruined by the same people who bought the estates, and the Irish were politically helpless in face of an overwhelming majority of commercial and land-owning members in the British Parliament. The land laws were equally rotten in Great Britain and in Ireland, but the former had a class of capitalist farmers to pass the burden of poverty on to the inarticulate farm labourer.

The number of persons in England and Wales engaged in the various occupations was tabulated under six general classes in the census returns from which those for the years 1881 and 1901 are given for comparison :—

OCCUPATIONS OF THE PEOPLE.

ENGLAND AND WALES.

Class.	Male.	Female.	Total, 1881.
Professional	450,955	196,120	647,075
Domestic	258,508	1,545,302	1,803,810
Commercial	960,661	19,467	980,128
Agricultural	1,318,344	64,840	1,383,184
Industrial	4,795,178	1,578,189	6,373,367
Non-productive (including children)	4,856,256	9,930,619	14,786,875
Class.	Male.	Female.	Total, 1901
Professional	652,543	172,873	825,416
Domestic	304,195	1,442,624	1,746,819
Commercial	1,736,247	142,687	1,878,934
Agricultural	1,071,040	—	1,071,040
Industrial	5,050,166	1,194,564	6,244,730
Non-productive (including children)	—	—	20,760,904

IRELAND.

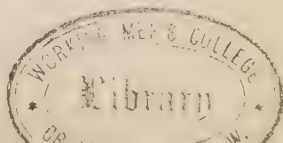
Class.	Total, 1881.
Professional	198,684
Domestic	426,161
Commercial	72,245
Agricultural	997,956
Industrial	691,509
Non-productive (including children)	2,788,281

5,174,836

In the twenty years from 1881 to 1901 a considerable change of occupation took place in England and Wales. An addition was made to the numbers of the professional class, entirely of males, of 28 per cent. This class, however, includes the navy and army, medicine and

teaching, all of which are developing. Female domestic service has diminished and male increased, the entire service showing a diminution of 56,000 persons. The commercial staff of the country has been doubled, the increase of the female contingent being over seven times the figures of 1881. The development of type-writing has had something to do with this remarkable change, as well as the growth of the sentiment of independence in women. The lowering of the agricultural population by $22\frac{1}{2}$ per cent. in twenty years is one of the most serious misfortunes that could befall any country. The cause of this decrease makes it the more alarming and deplorable. The chief improvements in agricultural implements and machinery were introduced long before 1881. It is not because one man can now do $22\frac{1}{2}$ per cent. additional work, but because there is $22\frac{1}{2}$ per cent. less work to do. The sole cause of the decrease of labour is the land going out of cultivation into pasture. Foreign and colonial competition in cheap agricultural produce makes it unprofitable to cultivate the land, on the commercial system of tenant farming. The English capitalist farmer has been driven to seek "fresh fields and pastures new" in the Colonies and the Argentine, taking his wages funds with him. England is not pre-eminently adapted for pasturage. The land is degraded, not put to a more efficient use. Only by more intensified cultivation can foreign competition be profitably met from the national point of view. The laws of possession of landed property must be revised on the pattern of Denmark and France, if England is not to become entirely dependent for food upon foreign or colonial produce.

There is a decrease of 2 per cent. on the total number of persons engaged in industrial pursuits in the twenty years, but this is entirely in the female labour, which is 25 per cent. less. An increase of $5\frac{1}{3}$ per cent. of males keeps the total decrease down to 2 per cent., so that the men of the country still continue to apply themselves in increasing numbers to industrial work, and England depends upon the continuous development of manufactures for maintenance.



The non-productive class, which includes from nine to ten millions of children under ten years of age, has increased by 40 per cent. in the last twenty years of the century. Half the number of non-productive persons are young children, but deducting these there are still 32 per cent. of the population able-bodied persons of both sexes who produce nothing and do no professional work, paid domestic service, or trade. This is sufficient to account fully for the predominance of imports over exports in the foreign trade, and argues enormous accumulated wealth fructifying at interest on investments. But it cannot be said to add to the population capacity of the country, for the excess of imports over exports which goes to its maintenance is really a part of the population capacity of other countries. If the population capacity is the number of people a land will support, the non-productive adult population of the country should in fairness be credited to the countries whose products they consume in excess of the products given in exchange. So that England is overpopulated by some ten millions of wealthy people, whom the country is unable to maintain by its own produce. Its productive capacity in 1901 supported a density of 300 people to the square mile, its actual population then was 563 to the square mile. There was an actual decrease in the numbers of the two producing classes, the agricultural and industrial, of 440,781 persons in the twenty years from 1881 to 1901.

In Ireland, practically an agricultural country, in 1881 the non-producing class, including children, was 53 per cent. of the population, the agricultural class 20 per cent., the industrial class $13\frac{1}{2}$ per cent., the commercial class $1\frac{1}{2}$ per cent., the domestic class 8 per cent., and the professional class 4 per cent. In the same year the non-productive class in England, including children, was $57\frac{1}{4}$ per cent. of the population. The increase of the same class in England in the twenty years to 1901 brought the percentage of the population up to 64. The agricultural class in England in 1901 was only $3\frac{1}{3}$ per cent. of the population.

The land settlement of the British Isles is plainly not advantageous to their population capacity. Now that the industrial development of England is on the wane, that the falling off in employment is chronic and must gradually tell more severely on the economic condition of the productive classes, attention must be directed to a land settlement capable of giving employment to an increasing number of people, and raising a vastly greater proportion of produce. The Bills brought before Parliament by both Conservative and Liberal Governments do not touch upon the question of allodial tenure. They merely deal with the letting of small holdings to tenants having little or no capital, and are practically branches of poor law. The Wyndham Act in Ireland is a bold commercial scheme for the purchase of Ireland from the large landholders at the expense of the taxpayers of the United Kingdom. Its sale to the tenants for the money they can make out of the land after the purchase will in no way benefit the people who pay for the operation. The transaction will benefit Ireland at the expense of Britain, but Britain is actually suffering greater loss and misery from the same cause. It would be impossible to treat the other two countries in the same way as the part of Ireland obtaining this relief. The great landlords cannot be bought out by the Government at compulsory purchase prices.

The total area of the United Kingdom is ..		Acres.	77,683,084
Of this—		Acres.	
Corn crops occupied, 1906 ..	8,392,145		
Green crops occupied, „ ..	4,139,033		
Pasture occupied, „ ..	27,446,739		
Not stated occupied, „ ..	7,217,942		
Total arable ..		47,195,879	
Moor and forest ..		30,488,205	

The Parliamentary Return made in 1872 on the motion of Lord Derby of the number of landowners in the United Kingdom and the acreage of land held by them, although the value of the return was very much diminished by the fact that it was made separately for each county, with the result that persons or corporations

who held land in several counties were returned as so many distinct owners, and the rental returned included that of the buildings on it, shows that 70 per cent. of the land was owned by less than 10,000 individuals in estates exceeding 1,000 acres in extent, the average extent of each estate being over 5,000 acres. The area owned in estates over 100 acres up to 1,000 acres in extent was 20 per cent. of the land, and the number of proprietors was under 50,000, the average extent of each estate being over 300 acres. Between 1 acre and 100 acres, $5\frac{1}{4}$ per cent. of the land was owned by 252,725 proprietors, 19 acres being the average extent of each estate. Under 1 acre, the freehold lots did not amount to a total area of $\frac{1}{4}$ per cent. of the land, the number of proprietors was 852,438, and their average holding was under $\frac{1}{4}$ acre. The remainder of the returns were incomplete as to area, so cannot be distributed under the four classes, but the remaining $4\frac{1}{2}$ per cent. of the properties, numbering 6,583, evidently belonged to all classes, their average extent being 843 acres.

The small estates under 100 acres can hardly be regarded as agricultural, but were probably residential or industrial properties, those under 1 acre yielding a rental averaging £200 per acre per annum, and those from 1 to 100 acres yielding £4 6s. 8d. per acre per annum. From 100 to 1,000 acres the average rental was £1 1s. per acre per annum, and above 1,000 acres the rental averaged 17s. 3½d. per acre per annum.

The value of agricultural land has fallen since 1872 so low that rentals are now only 50 per cent. of these rates. A large proprietor is fortunate if he can let his farms to responsible tenants with sufficient capital to work them, at 10s. per acre per annum. The purchase or sale of open land rarely takes place, the half-dozen or so of sales in the London market annually are put up to auction only to advertise the property, and when withdrawn they are sold privately at a price carefully withheld from the public. The only property sold by auction in 1908 was an estate in Kent of over 5,500 acres, with mansion-house, farm buildings, and growing timber, for which no more than £10 per acre was

obtained, or 7s. 6d. annual rental per acre inclusive. Landed property is unsaleable in England, the constant fall in the price of agricultural produce has disgusted the people with farming, and it is impossible to purchase a small farm at a reasonable price. Tithes are involved, legal expenses exorbitant, and the power of the feudal-commercial Barons is still sufficient socially and politically to prevent the breaking up of the large estates. The re-settlement of the land in agrarian proportions on allodial tenure cannot be commenced individually, a single freehold farmer in a county could no more live than a fish out of water. The movement can only be started on a national scale; farming on the Danish system is largely co-operative in the preparation of produce for the market and in the introduction of facilities for communication and transit. The disgust of the entire English people with all the sordid details of the present rotten system must be removed. The English farmer with capital pays £30 to £40 per acre for an improved farm in Australia, when equally improved farms in England do not fetch more than £10 per acre.

The Acts passed by the Government for the re-settlement of the land in England are the Allotments and Small Holdings Acts. An allotment may be of any size up to 5 acres. Allotments cannot be sold to applicants, but may only be let. No allotment may be sublet. Allotment tenants are entitled, on quitting their allotments, to compensation for unexhausted improvements under the Agricultural Holdings Acts, or under the Allotments and Cottage Gardens Compensation Act, 1887.

A "small holding" for the purposes of the Small Holdings Acts means an agricultural holding which is more than one acre and not more than 50 acres in extent. Its area may, however, exceed 50 acres if its annual value for the purposes of income tax is not more than £50.

The local authorities directly responsible for the provision of small holdings under the Acts are the County Councils and the Councils of County Boroughs. The Board of Agriculture exercises supervision over the County Councils, sanctions their schemes, and repays preliminary expenses. (*See Appendix A.*)

The Consolidated Acts of 1908 for Small Holdings and Allotments form a new departure for land settlement in England, which, if carried out faithfully by the County Councils, will increase the population capacity of the rural districts, and re-settle the most progressive section of the people, the lower middle class, on the land. The purpose of the Acts is to purchase the great estates with capital advanced by the Public Works Loan Commissioners at $3\frac{1}{2}$ per cent. interest to committees of the County Councils, with an 80 years' sinking fund. Capital will be advanced by the same body for the purpose of erecting buildings and drainage and fencing, at the same rate of interest with a 50 years' sinking fund.

The chief obstacle to the administration of these Acts has been the unwillingness of the County Councils to assume duties and responsibilities which must exceed, in case of success, the whole of their previous work in magnitude. The number of applicants during the year 1908 was found to be far in excess of the working powers of any County Council committee to deal with individually. Although the Councils were empowered to nominate members of the committees from persons outside the Council, the officials appointed by the committees for the working of the Acts are invariably the permanent staff of the Council. Inquiries having to be made into the character and financial standing of individual applicants, and each holding and allotment set out and constructed by the responsible authority, the work was beyond the staff of the committees.

This difficulty has been overcome by the encouragement of the formation of limited companies or "Associations" of applicants, these associations being affiliated to and organised mainly in connection with the Agricultural Organisation Society; and the County Councils propose to entertain only such applications as are received from associations. This arrangement leaves all the detail work and responsibility of settling and selecting individual applicants, collecting rents, and carrying out improvements, with the associations. These associations not only fulfil the administrative functions found too onerous in detail by the County

Councils, but in addition form co-operative societies of the holders for the purchase of all capital stock, seeds, plants, and implements, at wholesale prices; and the disposal of produce with despatch to the most favourable markets. Co-operative credit societies are formed in the same connection for the purpose of making small advances of short loans for the purchase of stock, seeds, &c., to small holders. Neither associations nor credit societies are profit-making companies, but are purely co-operative in constitution and management.

The weakness of the Acts so far appears to lie in the reluctance of the County Councils to put in force their powers of compulsory purchase of lands, the lack of recognition of associations by the Acts in giving them power to borrow directly from the Public Works Loan Commissioners, without the interposition of the County Councils, and the want of an authoritative definition of the charges to be added to interest on capital in the calculation of the rent to be charged to the small holder for the land. The rent charged by some County Councils includes the small percentage required to meet the purchase of the land by the redemption of the loan in 80 years, without any provision to vest the ownership of the land in the holder who has paid the sinking fund; while the County Councils pay the sinking fund out of the county rates, by which the county becomes legitimately the proprietor of the land. These weaknesses in the Acts will, no doubt, gradually be amended, especially as with the formation and growth of associations they must become a political power of no little influence in rural administration and in the election of representatives.

Up to January, 1909, the number of applicants for small holdings and allotments was 13,000, the total area applied for 175,000 acres, the area acquired by County Councils 22,000 acres, the area allotted 13,000 acres, and the cost £466,000, or £32 9s. 3d. per acre. Only 5 per cent. of the applicants were purchasers of the freehold. The terms of purchase are payment of one-fifth of the price in cash and the remaining four-fifths by annual instalments. Considering the requirements of a small

holding for capital to work it during the earlier years of occupation, and the insufficiency of the returns for livelihood during that period, it is not surprising that 95 per cent. of the applicants should be contented with a 21 years' lease from the County Council. For fruit-growing and intensified culture, however, tenancy for 21 years is extremely unsatisfactory. Both capital and labour are restricted, especially towards the end of a lease; and it is easy to see that the system of tenancy will become extremely wasteful, as compared with allodial tenure. If the Associations are recognised by the Government, and become the sole medium of negotiation with the Loan Commissioners on behalf of the tenants, the sinking fund would invariably be included in the rent and the tenure practically allodial, with no perceptible burden upon the holder. Without reference to the individual welfare, the nation must benefit by such a re-settlement of the land, and the population capacity of the country would be rapidly increased.

With the introduction of clauses for the compulsory sale of the large estates to the small holders, by auctions at frequent intervals to ascertain the current market value of the land, over one million new proprietors would be introduced to the arable land of the country by these Acts, with their families, raising the population capacity by five millions; and the attendant industries on agriculture would add not less than 50 per cent. of industrial population for the home market, bringing an additional population capacity to the United Kingdom of 7,500,000 persons from the improved land settlement. The economic gain to the country by the increase of home-grown agricultural produce, due to allodial tenure by the cultivators, will add enormously to the real wealth of the nation; and co-operative rural production, with improved facilities for marketing by additional public works, will raise the standard of living on small holdings.

A real "territorial" army of a million yeomen would be available for defence, with little cost to the State beyond equipment; men who would fight in defence of

their own property and homes, animated by the loftiest ideals of patriotism. The only obstacle to this glorious ideal is county-familyism, with all the petty snobbishness of the admirers and copyists of a baronial nobility, whose most meritorious services can hardly compensate for the agricultural ruin of their country. By many, if not most, of the nobility such a change would be welcomed; opposition should come only from the lawyers and politicians who fatten on their country's ruin. The suggestion is not socialistic, it is in no sense nationalisation of the land as formulated by the Labour party, whose "plank" would only substitute one big rack-renting proprietor without soul or conscience for 10,000 reasonable and kindly men. The new allodial peasantry would put their whole heart into intelligent and scientific cultivation of the soil. The light chalk lands would be irrigated by overhead spraying under pressure, raising the yield fourfold. The heavy soils would bear intensified cultivation with heating manure beds and glass covering. The wheat would be planted by dibbling the seed deep into the soil, producing three stalks and three ears for one produced by scattered superficial sowing. Everywhere additional labour would be profitably bent upon the soil, co-operation in works for dairying and preparation of produce for the market, and rapid locomotion on good roads by motor vehicles to markets, would combine to enrich the freehold cultivators and add to the wealth and population capacity of the country.

The greatest proportional increase on the changed occupations of England and Wales during the last 20 years of the century has been to the purely non-productive class, namely, 40 per cent. Next to it is the increase of the professional class, 28 per cent., which is not directly productive, consisting as it does of the civil service, army, navy, clerical and legal professions, to over one-half of its numbers. The teaching, medical, literary, engineering, and artistic professions (something under 50 per cent.) are highly useful, and indirectly productive by enhancing production in the directly productive classes, and are only placed socially with

the non-productive classes from their high intellectual and social standing. Many of the female domestics and industrial hands have joined the commercial ranks, owing to superior educational opportunities, and the diminished demand in their former spheres of employment.

Placing the domestics as non-productive, although employed in giving labour value for maintenance, and the commercial class among the producers as adding by their labour to the productive capacity of the country, the proportions of the classes of non-productive and productive persons are 70 per cent. and 30 per cent. of the population. The immense preponderance of non-productive population is the peculiar feature of English society, which is worthy of consideration in view of the stability and population capacity of the country.

The non-productive classes are not entirely composed of wealthy people. The pauper is as non-productive as the millionaire, and perhaps considerably less useful. The ratio of paupers per 1,000 of population in England and Wales fell steadily, with the exception of slight rises in such years as those of the cotton famine, from 62·7 per 1,000 in 1840, the year of the bad potatoes, to 26·7 per 1,000 in 1860. For the year 1907 the United Kingdom returned a total of 1,119,921 outdoor and indoor paupers of all descriptions, giving a ratio of 25·4 per 1,000 of the population. This does not include, however, the class of non-productives now known as the unemployed, and unemployment appears to have passed from the temporary stage of 1886 to be a more permanent economic feature of the United Kingdom.

The more uniform regulation of the undertaking of public works throughout the world, and the prevention of financial speculation in public works and growing crops, appear to be the preventives for unemployment which go to the root of the social disease, and measures of relief taking these directions are sound and permanent in their effects. The inception of new public works by the State and the re-modelling of the laws of settlement of land are measures which would cause the

complete disappearance of unemployment, and increase the population capacity of the country permanently on an industrial basis. Greater equality of opportunity is required for the agricultural and industrial classes, and after the United Kingdom has been developed to its utmost capacity, the wide Empire now being drawn together under one Government for the occupation and maintenance of a re-united people, will provide scope for increase of population capacity undreamt of by the most sanguine of statesmen.

CHAPTER VII.

EMIGRATION.

Cause of Emigration—Beginning of Colonies—British Emigration—Table—Irish Emigration—Destination of Emigrants—Table—Preference for Canada—Population (U.S.A.) Table—Table of Increase and Emigration, England and Wales—Cause of Prosperity of U.S.A.—Irrigation in U.S.A.—Railways in England—Colonial Settlement, U.S.A.—British Colonies—Depression of British Colonies—Government Work in Colonising.

THE growth of population capacity with civilisation is invariably accompanied by a more rapid increase of the population than of the capacity of the country. This is shown by the increase of emigration from countries of growing wealth and population, and by the foundation of colonies from the growing commercial States of ancient and modern times. As the Phœnicians founded Carthage and the Greeks Rome, in the most progressive and virile days of their existence, so the Dutch, the French, the Spaniards, and the British founded the greatest colonies of the world during the seventeenth and eighteenth centuries, in the youth and romance of the modern era. The European nations were then more eager for extension; emigration and colonisation were national enterprises for the acquisition of national property; not merely the striving of individuals after personal betterment. Armies led the way to Western continents and colonies were founded by Governments or powerful corporations, which would have been impracticable to the personal enterprise which, in succeeding centuries, has done so much for their development.

The prime cause of emigration is no doubt dissatisfaction with the conditions of life at home. The laws and their administration, with the vested interests they create, coming down from previous generations, hamper each existing generation of a progressive community,

by their conservative tendency. Religion, the least progressive of all forms of thought, took an active part in extending European settlement in the New World, whether its object was to proselytise the nations or for advanced thinkers to escape from intolerance and persecution. The conservative influence of feudal-commercial land laws in Europe drove millions of the more virile men to seek a more equal opportunity for cultivation on the unoccupied lands of the New World.

The Portuguese, the Spaniards, and the French were in the field as colonists and enterprising adventurers in search of wealth, long before Englishmen were. Spain had a settlement in Dominica as early as 1423, and Vasco de Gama reached India in 1498. In 1534 Jacques Cartier made his famous voyage up the St. Lawrence River, taking possession of the country in the name of the French sovereign. The beginning of the seventeenth century only found the English settling in Virginia. Barbados and Bermuda were settled by the English, and the latter partly by Virginian colonists, shortly after 1609. During the seventeenth century the growth of English colonies was slow, except in New England and along the American Coast to the South. The growth of population in England was then slow, the condition of life and public works being extremely backward. At the end of this century the English colonial possessions, in addition to the North American States, consisted of some 60,000 square miles of islands in the West Indies, and stations on the African Coast, with a claim to partial possession of Newfoundland.

During the first half of the eighteenth century the colonial possessions of England saw no extension of area, but a quiet consolidation by settlement, development, and the establishment of trade. The French held Canada and all North America as far as the half of Mexico, to the west of the Alleghanies. The outbreak of war with the French then resulted in the cession of Canada, in 1763, and the extension of British power over all North America to the North of Louisiana. The revolt of the ten colonies and the declaration of Independence in 1776, made the English Hanoverian power

in America short lived. Politically, the separation led no doubt to the vast extension of British colonial power over new territory, but there is every reason to believe that the policy of George the Third and his advisers was the cause of many great disasters in the subsequent history of Europe.

The flow of emigration from England to the United States had become, by the time of the severance of the colonies from the British Dominions, a matter of personal choice, and did not suffer serious interruption. On an average, two-thirds of all the emigrants leaving the United Kingdom have always settled in the United States of America. Emigration from the United Kingdom practically ceased during the great war with France at the beginning of the nineteenth century. In the year 1815 the total number of persons who emigrated from the three kingdoms was only 2,081. In 1820 it was 25,729; in 1830 it was 56,907; in 1840 it reached 90,743; and in 1850 it had arrived at the modern figures of 280,843.

EMIGRANTS OF BRITISH ORIGIN, 1851-89.
NATIONALITY.

Country.	1851-60.	1861-70.	1871-80.	1881-89.	Total.
England ..	640,000	650,000	971,000	1,409,000	3,670,000
Scotland ..	183,000	158,000	166,000	254,000	761,000
Ireland ..	1,231,000	867,000	543,000	677,000	3,318,000
U. Kingdom	2,054,000	1,675,000	1,680,000	2,340,000	7,749,000

DESTINATION.

Country.	1851-60.	1861-70.	1871-80.	1881-89.	Total.
U. States ..	1,257,000	1,185,000	1,088,000	1,562,000	5,092,000
Canada ..	222,000	136,006	178,000	279,000	815,000
Australasia	494,000	292,000	303,000	352,000	1,421,000
Other places	81,000	82,000	110,000	148,000	421,000
Total ..	2,054,000	1,675,000	1,679,000	2,341,000	7,749,000

The beginning of the enormous flow of British emigration during the latter half of the nineteenth century, which shows no sign of abatement so far as the twentieth century has gone, was occasioned by the potato famine of 1849. The number of persons who left Ireland during the first decade of this period was nearly double the number which left England, although England is nearly twice the area of Ireland, and had at that time nearly three times the population. The famine accentuated the distress caused to the agricultural population by the ruin of the Irish Squireens, who, corrupted by romantic adventures and sporting life during the war on the Continent, carried on a career of reckless high living and neglect of business at home. The commercial and manufacturing magnates from Lancashire who bought up the estates had no sympathy to spare for the teeming humanity of the bog clearings, rack-rented the peasantry for land they had themselves reclaimed, and evicted without remorse tenants-at-will who fell into arrears. The passionate attachment the peasant feels to the land he has reclaimed and the "biggin" he has erected with his own hands was ruthlessly violated, and no place left for the victim of oppression, ignorance, and want in a country that esteemed men as nothing, money as absolute right. The eight millions of Irish settlers in the United States have never forgiven these wrongs; the most fatal policy of the British Parliament, for the international amity, has been their culpable neglect of the land laws of the United Kingdom, and especially of Ireland.

The flow of English emigration to the United States begun much later than from Ireland, and reached a maximum in the decade 1881-90. The Englishman, as a rule, likes to retain his nationality, even abroad, and it was only the selfish and short-sighted policy of the British Colonial Governments and people, in various enactments and hostile tariffs against British trade, coupled with the policy of the Liberal party in England, that diverted the stream of emigration from the Colonies to the States. In some of the Australian centres of population a

practical boycott of intrusive English labour existed, and the Canadian statute books were disgraced by enactments prohibiting professional men from practising until they had resided two years in the Colony. Latterly, the United States Legislatures have adopted this attitude for the protection of skilled and professional labour, but what is folly within the parts of a common empire is wisdom between foreign States.

DESTINATION OF BRITISH EMIGRANTS, 1887-1906.

Year.	To North Ameri- can Colonies	To the United States.	To Australia and New Zealand.	To South Africa.	Foreign- ers Through Britain.	Total.
1887 ..	32,025	201,526	34,183	4,909	32,008	281,487
1888 ..	34,853	195,896	31,127	6,466	33,895	279,928
1889 ..	28,269	168,771	28,294	13,884	43,122	253,795
1890 ..	22,520	152,413	21,179	10,321	44,663	218,116
1891 ..	21,578	156,395	19,547	9,090	47,197	218,507
1892 ..	23,254	150,339	15,950	9,891	44,673	210,042
1893 ..	24,732	148,949	11,203	13,097	37,634	208,814
1894 ..	17,459	104,001	10,917	13,177	66,129	156,030
1895 ..	16,622	126,502	10,567	20,234	64,803	185,181
1896 ..	15,267	98,921	10,354	24,594	56,509	161,925
1897 ..	15,571	85,324	12,061	21,109	57,994	146,460
1898 ..	17,640	80,494	10,693	19,756	46,362	140,644
1899 ..	16,410	92,482	11,467	14,432	59,576	146,362
1900 ..	18,443	102,797	14,922	20,815	74,681	168,825
1901 ..	15,757	104,195	15,350	23,143	60,736	171,715
1902 ..	26,293	108,498	14,345	43,206	62,159	205,662
1903 ..	59,652	123,662	12,375	50,206	82,390	259,950
1904 ..	69,681	146,445	13,910	26,818	92,172	271,435
1905 ..	82,437	122,370	15,139	26,307	77,908	262,077
1906 ..	114,859	144,817	19,331	22,804	95,264	325,137

The number of immigrants to the United Kingdom in 1906 was 230,165; the number of emigrants that

left the country in the same year was 557,737; giving the net emigration of 327,572 persons. Of these emigrants the number of foreigners leaving Britain by the tabular statement was 95,264, the difference between that number and the number of immigrants indicating that 134,901 foreigners settled permanently in that year in the United Kingdom.

The progressive state of the Dominion of Canada during the present century is shown by the rise in the number of British emigrants settling there in preference to becoming American citizens, seven times the number of persons going to the North American Colonies in 1906 that went there in 1901. The increase is gradual and persistent during the five years, and appears to be the result of an enlightened policy adopted by the Dominion Government in pushing on the extension of railways, inland navigation, irrigation and land settlement on favourable terms; combined with a remarkable development of mining and manufacturing industry. This movement has been simultaneous with the migration of even larger numbers from the United States to the Dominion, the favourable terms of land settlement and climatic conditions of the western provinces, with the rapid extension of marketing communications, having attracted an immense American farming population. The rapid increase of exports of wheat and other produce from the North American Dominion coincident with this immigration shows the favourable influence of internal public works upon population capacity. It is evident that capacity increases in advance of population in this (again) rising country, as it kept ahead with the railway extension of the United States during the nineteenth century.

The advance of the United States of America in population capacity during the nineteenth century has been at a higher rate than any known in history in a like period. The increase of population has largely consisted of immigrants from Europe, but the rate of increase by excess of births over deaths is also high, far above the European average.

POPULATION OF UNITED STATES, 1790 TO 1900.

Year.				Population.	Annual Rate of Increase.
1790	..	..	..	3,929,214	Per cent. 3·4
1800	..	..	..	5,308,483	3·25
1810	..	..	..	7,239,881	3·1
1820	..	..	..	9,633,822	3·2
1830	..	..	..	12,866,020	3·0
1840	..	..	..	17,069,453	3·06
1850	..	..	..	23,191,876	3·05
1860	..	..	..	31,443,321	2·1
1870	..	..	..	38,558,371	3·0
1880	..	..	..	50,155,783	2·2
1890	..	..	..	62,480,540	2·0
1900	..	..	..	76,356,000	

The annual rate of increase during the same period in England and Wales, and the annual rate of emigration were :—

Decade Years.				Annual Rate of Increase.	Annual Rate of Emigration.
				Per cent.	Per cent.
1801-11	..	..	..	1·4	—
1811-21	..	..	..	1·6	0·019
1821-31	..	..	..	1·46	0·31
1831-41	..	..	..	1·34	0·49
1841-51	..	..	..	1·2	1·09
1851-61	..	..	..	1·12	1·08
1861-71	..	..	..	1·26	0·79
1871-81	..	..	..	1·4	0·70
1881-91	..	..	..	1·1	0·85
1891-1901	..	..	..	1·08	0·62

The United States of America thus shows a rate of progress in population capacity from two to three times that of any other state or colony in modern times. The liberal terms of assimilation of aliens has undoubtedly been highly favourable to the increase, and the attractions of freedom and opportunity for all were in marked contrast to the countries of Europe. But the great attraction and chief cause of migration to these States has been the rapid growth of public works, preparing in advance communications and markets for produce. In the ten years from 1879 to 1889 the annual rate of extension of railroads in the United States was on the average 7,500 miles. During the same period the average annual rate of extension of railways in the United Kingdom was 225 miles. The mileage opened in the United States, about 300,000, shows that there is one mile of railroad for every 270 inhabitants; while the 23,000 miles of railway in the United Kingdom gives one mile to every 1,916 inhabitants. The single item of railway communication being seven times as plentiful for U.S.A. citizens as for U.K. subjects, goes far to explain the more progressive rate of population capacity in the United States. The tenure of agricultural land in the States is almost entirely allodial. In the area under cultivation, which is so far only one-third of the habitable territory, agriculture is advancing in scientific development and intensity, irrigation is being applied in the arid western States, and ranching has been already superseded by stock breeding on farms. The United States Federal Government have commenced the work of irrigation in the arid States on a gigantic scale, and irrigation for the next two or three centuries will certainly be the most important of American public works. No other public works, not even works of communication, can increase the population capacity of a country so rapidly as national irrigation works. The density of population of an irrigated country is invariably two to three times that of the most fertile country naturally watered. By pressure service of water from the Louisiana Basin to the high arid lands and pressure spray irrigation,

the United States would carry an average density of 500 inhabitants to the square mile, that is 1,500,000,000 people. This result can only be achieved, however, by an intelligent government carrying out the greatest system of public irrigation works with power installations that has ever been conceived. The present density of population in the United States averages only 26 to the square mile.

The extreme tenuity of railway communication in the United Kingdom is due to the complete neglect of the development of agriculture by the institution of allodial tenure. No agricultural railway, not even a light railway, can be made in England to pay. Not a single light railway has been constructed under the Light Railways Act of 1898, notwithstanding Associations admirably organised at the time to promote and utilise legislation. The land has been rapidly falling out of cultivation, the ranching system has been introduced in England and Ireland, and the land of the greater part of Scotland has already passed through the stage of degeneration marked by sheep-farming and ranching to be devoted solely to wild game and hunting sports. There can be no revival of progress in railway communication until the land has been re-settled under wise legislation on allodial tenure, which would in the course of ten years increase the industrial population capacity of the United Kingdom by $7\frac{1}{2}$ million persons, and add an equal number by the extension of railway and other communications consequent upon agricultural improvement.

Colonial expansion during last century in the United States has been lost sight of owing to the compact territorial lie of the country. The region lying immediately west of the Alleghanies was as truly colonised from the eastern States in the early part of the century as Canada or Australia was from Britain. Settlement on the Mississippi flat lands and the western prairies was a colonising movement from Kentucky as much as from the eastern States or Europe. What blinds the European spectator to the nature of American expansion is the early incorporation of the newly settled territories

into the Union as equal States. British Colonies have never been so incorporated. The fright given to the British Government by the successful revolt of the United States caused them during the nineteenth century to constitute each colony, as it settled into a State, a separate self-governing republic. The only tie left to connect it with the Mother Country was the burden of defence from foreign aggression retained by the too generous parent. No provision was made for contribution by the Colonies for national defence, anything since undertaken by any of them being purely voluntary. No provision was made for the representation of the Colonies in a federal council chamber for dealing with Imperial affairs. No provision was made for free trade within the borders of the Empire, and so little is the principle of free trade understood that the Liberal party in the old country actually resist with extreme indignation the attempts of tariff reformers to institute the slight approach to free trade within the Empire marked by colonial preference.

The federation of the colonial groups of States into Dominion, Commonwealth, and the coming South African Union, may lead in the future, through the channel of tariff preference, to a Customs and Federal Union of the British Empire. Unless the Federal Government has vested in it equal powers for the undertaking of public works throughout the Empire, to those so beneficially exercised by the federal bureau of the United States, the federation of the Empire will have little or no influence upon its population capacity. The alienation of vacant lands throughout the Empire from national ownership and authority to weak provincial councils has proved a fatal obstacle to the closer settlement of the over-sea portions of the country. Public works of a magnitude requiring the resources and power of the government of an united empire have been neglected or carried out in niggardly ways by private enterprise or local bodies, driven by commercial self-interest or local vote-catching. The most serious misfortune, however, brought upon the Empire by the political severance of the Colonies and the alienation to

local bodies of the national lands, is the continued lack of organisation or funds for the settlement of vacant lands.

What would have been a munificent birthright for every landless Briton, has been frittered away by inept legislators. The comparatively recent institution of colonial government agencies in London to tout for emigrants possessed of £200 capital; and information offices by the Imperial Government to advise penniless families or individuals "not to emigrate"; has had no perceptible effect upon the closer settlement or the more uniform distribution of population throughout the Empire. Not only is national defence hampered by the absence of all federal control, but national growth is stunted and development seriously checked by the waste of national resources. Protection by each portion of the Empire by burdensome colonial duties on merchandise prevents the legitimate growth of trade within the country.

The idea that the sea separates the portions of the Empire instead of being the natural highway of communication, is decidedly un-English. Before 1776 it was unheard of, the Colonies were merely the plantations, and no man thought that he was leaving his native country when he removed to a portion in it oversea. Naturally emigration is exile when a native of the British Isles passes for better or worse into a country guarded by fiscal barriers and organised boycott, under an alien government, without financial help or resources except what he carries in his pocket, and meeting with no sympathy on grounds of common nationality. The Imperial Government should establish its information bureaux as assistance bureaux for immigrants in the Colonies themselves, and take a more intimate interest in the success and welfare of their pioneer settlers. No difficulty would be found in amassing funds for a federal chamber to endow its colonial agencies for the support of married or unmarried settlers during the trying preliminary work of extending the cultivated estates of the Empire.

Irrigation is the greatest public work lying before a federal government of the British Empire, more than

three-fourths of the lands within the Empire being arid. The federal government of the United States has taken up this work entirely, leaving nothing for the State Legislatures or executive departments to do in regard to it. The South African problem might be dealt with by a federated State, the Commonwealth Government could deal with the water supply of Australia as a whole, the Soudan and India are trying to extend their systems by local effort, but a federal irrigation department would co-ordinate systems and bring the whole resources of the nation to bear upon the most important public work required for the increase of population capacity. Why should the necessary public works, for the settlement of natives of the British Isles on vacant lands in other provinces of the Empire, be left to the comparatively puny efforts and resources of the pioneer settlers? The principle is unjust and ineffective. The United States Federal Government have always relieved the territories of the burden of public works and immigration charges. But America is a century ahead of the British Empire in all that relates to masterly consolidation of administration, and the development of the public works which alone lead to increase of population.

CHAPTER VIII.

THE EUROPEAN CONTINENT.

Population Table—Russia—Depression of Russia—Norway — Sweden — Denmark — Germany — German Emigration — German Federal Government — German Public Works—Holland—Dutch Works—Belgium — France — French Population Table—French Investments—French Irrigation—French Trade—Spain — Portugal — Switzerland — Austria—Hungary—Italy—Greece.

THE population capacity of the existing European Continental States in 1906, with an earlier year in comparison, is as follows :—

Country.	Year.	Population.	Area, Square Miles.	Persons per Square Mile.	In- crease per cent. per ann.
Russia-in- Europe {	1885	81,725,185	1,887,043	43.3	} 1.32
	1906	107,750,000	1,859,195	57.95	
Poland .. {	1885	7,960,804	49,142	162	} 1.5
	1906	10,800,000	49,084	220	
Finland .. {	1885	2,176,421	144,211	15.09	} 1.23
	1906	2,820,000	144,211	20	
Norway .. {	1888	1,990,000	124,666	15	} 0.8
	1905	2,311,527	124,130	18.6	
Sweden .. {	1888	4,748,257	170,661	27.6	} 0.65
	1906	5,337,055	172,876	30.8	
Denmark .. {	1880	1,969,039	14,751	133.5	} 1.1
	1906	2,588,919	14,844	174.4	
German Empire {	1885	46,825,704	208,670	224	} 1.6
	1905	60,641,278	208,670	291	
Holland .. {	1879	4,012,693	12,515	320	} 1.3
	1905	5,591,701	12,582	444	

Country.	Year.	Population.	Area, Square Miles.	Persons per Square Mile.	In- crease per cent. per ann.
Belgium . . . {	1880	5,520,009	11,370	485	} 1.03
	1905	7,074,910	11,373	622	
France . . . {	1886	38,218,903	204,031	187	} 0.13
	1906	39,252,245	207,218	190	
Portugal.. . {	1878	4,348,551	34,409	126	} 0.65
	1900	5,016,267	34,254	146	
Spain . . . {	1887	17,545,160	195,716	90	} 0.46
	1900	18,618,086	196,173	95	
Switzerland . . {	1888	2,933,334	15,442	189	} 0.51
	1901	3,313,000	15,464	214	
Austria- Hungary {	1880	37,883,503	239,218	158	} 0.85
	1904	46,575,000	240,872	194	
Italy . . . {	1881	28,459,628	110,623	257	} 0.65
	1901	32,475,253	110,623	293	
Greece . . . {	1879	1,719,301	24,970	70	} 2.1
	1896	2,433,806	24,977	100	
Servia . . . {	1883	1,865,301	18,704	100	} 1.6
	1901	2,500,000	18,757	133	
Bulgaria and Armenia {	1881	2,007,919	24,693	81	} 1.7
	1900	3,774,283	36,943	102	
Roumania . . {	1884	5,173,452	50,160	103	} 0.8
	1906	6,150,000	50,792	121	
Turkey-in-Europe	1906	6,000,000	66,500	90	—

Next in proportion to the German Empire, Russia is the most progressive country in Europe. The average density of the population, including Poland, is 50.3 per square mile, and Russia adds about a million and a half annually to the number of its inhabitants. The country consists of an immense plain with only four low ranges of hills, two in the middle and two in the northern portion of the territory. The greater proportion of the territory, that lying between the Baltic and the Black Seas, is the finest wheat country in the world; the harvest of 1905 yielding 12,000,000 tons, besides 5,800,000 tons barley, 11,000,000 tons oats, and 15,123,000 tons other grains, which latter formed the staple food of the inhabitants. Hemp and flax are largely cultivated,

and also 18,000,000 tons per annum of potatoes, with 100,000 tons tobacco. The largest yield of petroleum for any country in the world is obtained in Russia, nearly 7,000,000 tons in 1905, and its oil fields are practically inexhaustible, although worked only to the limited extent of 7,000,000 tons in 1905. With metallurgical and engineering factories Russia possesses many extensive manufacturing establishments for weaving, tanning, fur-dressing, &c. Woollen and worsted stuffs, fine cloths, and mixed stuffs are also produced. Only the paucity of communications prevents Russia becoming the first country in Europe, the railways in European Russia only extending to 30,000 miles in 1901. For the extent of territory and the number of inhabitants to be served Russia is on a par with the United States of America, and should have an equal railway mileage—300,000. Two-thirds of the mileage were constructed and are owned and worked by the State.

Unfortunately, Russia has always been ruled autocratically by a wealthy sovereign and aristocracy, and the people degraded by a superstitious and narrow Church. Railways have been aligned mainly in view of military strategy; the means and attention of the Government having been, so far, diverted from the development of the country by the extension of public works, to be applied mainly to the extension and defence of territory. Personal safety of the Royal family and aristocracy has also moulded the policy and action of the principal departments of State. The political improvement of Russia must precede any acceleration of the rate of advance in material welfare, but with the splendid natural resources of the country, its rate of increase of population capacity should rise to more than double anything it has hitherto shown. This is confirmed by the high rate of increase in Poland, where the density of the population is the greatest in the empire. The administration of Poland is, if anything, worse than the rest of Russia, but private enterprise by a more energetic and intellectual section of the great Sarmatian race has developed public works in advance

of Russia, although the town of Warsaw is kept in a deplorable condition by its autocratic foreign governors. A strong infusion of the progressive Polish element into the government of Russia would be the greatest national benefit, and the capture of political advancement in the empire the most beneficial policy for the Poles.

The last country in the world from which emigration should take place is Russia, for it possesses unlimited fields in Asia and Europe for settlement upon fertile and uncultivated lands. Yet a large volume of emigrants leaves Russia every year to find happier conditions of life in Britain, the United States and Canada. The dearth of public works and the plenitude and power of the clergy accounts for emigration. The capital of the country being diverted by the government to military works and by the Holy Synod to ecclesiastical buildings, leaves too little for the extension of public works in due proportion to the extent of territory and the scattered but great population. Land-owning in large estates of 50,000 to 100,000 acres also deprives the cultivators of incentive to energetic effort. The yield per acre of the land is the lowest in Europe, where in happier conditions of ownership it would be the highest, and the Moujik is without hope of personal improvement, a drunken and ignorant helot. A great legislative and administrative work lies before the rulers of Russia in readjusting land ownership and laying out new public works. In this direction the power of the empire may be developed to an unlimited extent, as mere territorial aggrandisement tends now to weaken it. The true source of strength for the State lies in its population capacity.

Norway consists of a mountainous surface, with elevated and barren tablelands, separated by deep and narrow valleys. The cultivated area is about one-thirtieth part of the country; forests cover nearly one-fourth, the rest consists of highland pastures or uninhabitable mountains. Agriculture, although pursued with some vigour, is unable to furnish sufficient produce for home consumption; hence it has been

necessary to import considerable quantities of corn, meat and pork. Fisheries, minerals, timber and pulp, and manufactures form the chief wealth of the country ; power being obtained from the natural waterfalls. The lie of the land is not suitable for extensive railway communication, and the climate during the winter is unfavourable to trade. In these circumstances emigration affords a greater outlet for increasing population than the increase of the population capacity of the country. About 20,000 people emigrate annually, almost entirely to the United States of America, which receives, perhaps, its most valuable constituents from the Scandinavian countries. The proportion of the population emigrating annually is thus 1 per cent. as against the increase of population capacity of 0·8 per cent. per annum.

Sweden has always been a progressive country, inhabited by the finest race in the world. The country for the most part is flat and undulating, rising to the Kolen Mountains in the west, which divide it from Norway. Nearly 54 per cent. of the population are engaged in agriculture, about 246,000 being owners and 44,000 tenants of the land they cultivate. The country may be divided into three districts—the northern, forest ; central, mining ; the southern, agricultural. The lakes cover one-twelfth of the surface ; forests of timber cover one-half of the country ; and the southern division has a fine climate, favourable for producing grain. The mineral products are extremely rich, Swedish iron being the mainstay of British manufactures. Gold and silver in small proportions ; copper, lead, nickel, zinc, cobalt, alum, sulphur, porphyry and marble are worked. Considerable mines of coal are worked in Scania. An average of 42,000 people emigrate annually from Sweden, chiefly to the United States ; being 0·84 per cent. as compared with an increase of population capacity of 0·65 per cent. per annum. The distribution of the land mainly among small proprietors who are themselves the cultivators is a permanent institution of long standing as in France. The land is cultivated to its highest yield in the present state of science and public works,

and the rate of progressive improvement necessarily small. This is consistent with a high state of civilisation, but is not bound to be permanent. At any time new discoveries in science, or a new method of treatment of forest lands, may rapidly extend the population capacity of the country and lead to a further progressive movement in the productive industries.

Nearly one-half of the inhabitants of Denmark live exclusively by agriculture, and one-fourth by industries and trade. Denmark takes rank in density of population with the most advanced of agricultural countries. Its annual rate of increase is also the highest in any country dependent mainly on agriculture for its subsistence. No statistics of emigration are available, although Danes are met all over the world, generally engaged in commercial pursuits. Its chief exports are agricultural produce, including wheat and barley, bacon, hams, flour, butter, eggs, hides, skin, corn-meal and oil-cake, horses and cattle. While the yield of corn in Denmark is nearly the same as in the United Kingdom, 35 bushels to the acre, 30·6 per cent. of the total acreage of Denmark was under corn crops, while only 10·82 per cent. of the total acreage of the United Kingdom grew corn. The acreage under pasture in Denmark was 33·13 per cent. of the whole, while the acreage similarly occupied in the United Kingdom amounted to 40·65 per cent. The dairy and other produce from stock in Denmark was put to such excellent use by the agricultural industries, however, that the value of these products exported from Denmark to the United Kingdom in the year 1906 was as follows :—

Butter	..	..	..	..	£ 9,636,862
Eggs	..	..	..	..	1,701,291
Bacon	..	..	..	..	4,324,055

£15,662,208

so that the agricultural population of Denmark earned in that year from the simple Britisher £15 each, from these three items of produce alone. The land in Denmark is all owned in small farms, averaging 40 acres

in extent, by the cultivators. Butter and bacon are prepared in co-operative farm factories, and fowls are reared by the hundred for egg production by the tireless owners of the land. It is in these items that the difference between the industry of the small landowner and that of the tenant farmer tells. With similar small land-ownership in the United Kingdom, that £15,662,208 would have lined the pockets of British breeches.

The German Empire takes the first rank in Europe as the most progressive country in arts and manufactures, with a highly developed agricultural industry which supports nine-tenths of her population by her own produce, and the highest annual rate of increase of population. In 1895 the people supported by agriculture were 35 per cent., mining 3·5 per cent., industries 35½ per cent., trade 11½ per cent., and the remaining 14½ per cent. were non-productive. Germany is becoming more and more a manufacturing country, the population increasing with great rapidity. The increasing capacity of the country is due to improvements in processes and the extension of public works for the development of manufactures.

At the beginning of the nineteenth century few Germans emigrated, probably from the same causes as in Britain, connected with the Napoleonic wars, but about fifty years afterwards emigration reached its maximum. The figures are given in decennial periods as follows :—

1831-40	..	152,000	|	1871-80	..	623,000
1841-50	..	435,000	|	1881-90	..	1,342,432
1851-60	..	952,000	|	1891-1900	..	529,875
1861-70	..	822,000	|	1901-05	..	146,540

Out of thirty millions of emigrants from Europe in the nineteenth century, Germany contributed about five millions, or one-sixth of the whole. The highest number in one year (1881) was 220,902, and the lowest number in any recent year (1901) was 22,073. Apart from the immense proportions of the empire, emigration bears the lowest ratio to the increase of population of any country in Europe. At its highest, in the ten years 1881-90, it reached only 0·28 per cent. per annum ;

taking it for the same period (1885-1905) for which the rate of increase per cent. per annum is calculated at 1·6, it only amounts to 0·11 per cent. per annum ; and during the last ten years (1897-1906) emigration has dwindled down to the rate of 0·05 per cent. per annum of the population. Allowing £200 per head as the average cost of rearing and personal capital taken with emigrants, the annual saving to Germany by the decrease in the number of emigrants amounts to £40,000,000. These emigrants were entirely lost to the empire, their destination being the United States of America, Brazil and the British Colonies. The gain to foreign countries was vastly greater in cash value than the loss to Germany, the German settlers being notoriously the most useful, laborious and wealth-producing of colonists. The province of San Paulo, in the southern uplands of Brazil, owes its prosperity in coffee production, supplying half the coffee consumed throughout the world, entirely to its settlement by the German colony. While the Federal Government of Brazil cannot borrow another loan anywhere, the San Paulo loans are subscribed in Europe four times over. The diminution of emigration, coupled with the high rate of annual increase, is the most favourable indication of German prosperity and progress.

Amongst the matters belonging to the jurisdiction of the Empire, the Federal Government controls the army and navy ; the common, civil and penal law of the Empire ; posts and telegraphs ; the railways ; inland navigation ; customs ; weights and measures ; coinage ; banking ; patents ; foreign trade ; the German mercantile marine ; the press ; everything relating to the right of forming corporations ; and colonisation. That is to say, public works of communication with the control of trade are entirely in the hands of the Imperial Government. Germany is run as a business concern in the most masterly fashion, and is fortunate in the possession of a supreme head in the Kaiser William, endowed with natural business aptitude equal to the greatest industrial organisers of Europe, America or Africa. The socialistic legislative measures taken to

discourage emigration and stimulate local growth, by means of old age and infirmity insurance, by making a gigantic and all-powerful club of the nation, have done more to weld the people into a permanent, home-staying family than has ever been achieved by any other race. The regulations for contributions by employers and employed are infinitely wiser than the non-contributory schemes of Britain and her Colonies, where the old age pensions without infirmity qualifications savour of a branch of poor law. The British Government might have given the initial start to the beneficiary contributions for a few years, and thus have preserved the most admirable principle of the club.

Germany now ranks second in the list of the countries of the world that own shipping. The total length of the railways in the Empire at the end of the year 1905 was 33,936 miles, and the length of navigable rivers and canals is greater than that possessed by any other country. The State owns 92 per cent. of the mileage of railways, which shows the important part the Federal Government takes in the extension of public works. There is only one mile of railway to 1,765 people, which, considering the comparatively moderate density of the population, should leave room for considerable further profitable extension.

The rapid extension of mercantile marine and naval sea power under the Empire must lead in the near future to the evolution of an Imperial colonial system of unique and novel character. The automatic systems of the British races do not commend themselves to the German temperament. The last word in colonial policy has not yet been heard, and with the abundant and excellent materials in the German State for the building up of new over-sea countries, an outlet will be found for the Imperial energy when the country and the time are ripe for the new development. In the meantime there is ample room for German expansion by closer settlement within Germany. A country turning its attention to manufacturing industries, with the natural resources Germany commands in men and minerals, has fully a century before it for internal

increase at its present high annual rate, and with merely the existing standard of civilisation as the gauge of its population capacity. The most scientifically progressive State of Europe, however, German development will probably yield a greater ultimate density of population than even the present density of England, especially when attention is directed to the evolution of irrigation and intensified agriculture.

Holland, in the year of Voltaire's computation, at the beginning of the eighteenth century, carried a population of about two millions, being with the neighbouring States of Belgium the most densely populated country in Europe. Agriculture, trade and manufactures, the latter chiefly textile and ceramic, of great beauty and value, were carried to the most perfect development of the day. Foreign colonies, factories and trade were opened up during the century to a greater extent by the Dutch than by any other nation in Europe. The country was cruelly devastated during the previous century by the hundred years' war of independence, but war against a foreign foe has never had a degrading effect upon a nation. The Netherlands were not so unequally matched with the Spanish power as territorial appearances would suggest, the population of Spain did not exceed that of the Netherlands by more than 50 per cent., and was scattered over an area eight times the extent of the Batavian Federation.

During the 179 years from 1700 to 1879 the population capacity of Holland increased at an average rate of 0.375, or $\frac{3}{8}$ ths per cent. per annum. This compares favourably with France, which in the same period advanced at exactly the same average rate per annum. In modern times, however, Holland has shown a much more progressive policy, the annual rate of increase during the last 26 years being 1.3 per cent. The rate of emigration is annually about 0.1 per cent of the population, and most of the emigrants go to the United States of America, although the East Indian possessions of this small European State extend to an area of 738,000 square miles. These possessions are chiefly useful for the extension of over-sea trade, the climate being in no

case suitable for European labour or permanent settlement in the present state of hygienic knowledge. The chief products of the country are those derived from agriculture, fisheries, the manufacture of quasi-dairy products or margarine, textile fabrics, ceramic wares, chemical manufactures, engineering and shipbuilding. The land is generally low and flat, intersected everywhere by navigable water-courses and canals, which, in addition to draining a country which would otherwise be a swamp or lake-bed, afford the most copious system of inland navigation in Europe. Railways are naturally restricted mainly to passenger and main line traffic; there is only one mile to every 3,066 inhabitants. The public works are chiefly for drainage and closer settlement on the land, and as for centuries the Dutch have taken the lead in drainage and land reclamation works, so their progress continues mainly in that direction. Irrigation in Persia has fallen into the hands of Dutch engineers, and as irrigation and drainage must inevitably become the chief engineering work of the world for many centuries, the specialists of this small but enterprising nation have a great future before them throughout the world.

Belgium, the most densely populated country in Europe, shared the prosperity of the Netherlands, in which it was included during the Middle Ages. Although the annual rate of increase of population is now rather less than that of Holland, 1.03 per cent., the rate of emigration is much higher, 0.26 per cent. Since the year 1861, however, there has been an annual excess of immigrants over emigrants, probably due to the rapid extension of manufacturing industries, the totals in 1904 being: Immigrants, 35,615; and emigrants, 27,302. There are 27 births to 17 deaths per 1,000 inhabitants annually. The soil was divided, in the year 1895, among 829,625 proprietors, giving an average extent of 8.77 acres to each, so that allowing for small freehold building lots, agricultural estates cannot give much if any scope for the pernicious system of large properties and tenant-farming. Notwithstanding this, Belgium, being essentially a manufacturing country, is largely dependent upon

foreign supplies for its food. In 1907 there were 4,702 miles of railway open, being one mile for every 1,500 inhabitants. It has, in addition, considerable facilities for inland navigation, so that its public works for communication are in a more advanced state than those of the neighbouring countries of Holland, France and England. This fact, with its great mineral wealth and advancement in productive industries, explains its superior population capacity. A large proportion of the soil, comprising the region of the Ardennes, is of poor quality and comparatively barren, although worked to great advantage by an admirable system of allodial land settlement.

France is chiefly an agricultural country of great fertility and fine climate. The density of population is naturally small as compared with that of countries developed upon industrial lines, averaging about a third of the density of England or Belgium. The cessation of increase of population capacity by the development of public works, combined with the most odious of large proprietary systems of the land, caused the extreme distress in the mass of a population of about 25,000,000 which led to the French Revolution at the close of the eighteenth century. Farming both of the land and of the taxes deprived the people of all incentive to productive labour, and the enormous drain of men and money caused by the ruinous wars and general extravagance in expenditure on ornamental and unproductive works under the long reign of Louis XIV., was never recovered by the country by means of enlightened policy or liberal expenditure on communications under his two successors.

Although France has the finest climate in Europe, and a rich and productive soil, cultivated by a laborious peasantry mainly on allodial tenure, its rate of increase of population capacity has not been high owing to political changes and their effect upon the extension of public works. The first half of the last century was evidently the most flourishing era of its modern development, the period of recovery from the effects of the Franco-Prussian War being naturally an age of slight internal development.

The following tabular statement of the population shows its variations during the eighteenth and nineteenth centuries :—

Year.	Population.	Annual Rate of Increase or Decrease.	Annual Rate of Emigration.
		Per cent.	Per cent.
1700	19,660,320	+ 0·32	—
1801	27,349,003	+ 0·54	—
1821	30,401,873	+ 0·67	—
1831	32,569,233	+ 0·48	—
1841	34,230,178	+ 0·29	—
1856	36,039,364	+ 0·54	—
1866	38,067,064	— 0·88	—
1872	36,102,921	+ 0·50	—
1881	37,672,048	+ 0·29	+ 0·015
1886	38,218,903	+ 0·06	+ 0·07
1891	38,343,192	+ 0·09	—
1896	38,517,975	+ 0·23	—
1901	38,961,945	+ 0·15	—
1906	39,252,245		

The civilisation and population capacity of France in the reign of Louis XIV. were on the highest scale in Europe. The density of population compared with the British Isles was as 97 to 66½ per square mile, and with Germany as 48 to the square mile. Germany had in 1905 a density of 291 per square mile, and England and Wales 563 in 1901, as compared with 190 per square mile in France in the year 1906. The annual rate of increase of population in Germany is 12¾ times that of France. The principal factor in the production of this marvellous contrast appears to be the respective

systems of government in their influence upon the inception and undertaking of public works for the internal development of the resources of the country.

The internal development of France bears no perceptible ratio to its capacity for the production of wealth. In the taking up of foreign loans France is far in advance of any other European country. In addition to subscribing the largest national debt in the world, and paying the annual interest upon it by heavy taxation, every other national debt in Europe has been subscribed mainly in France. The cash required for the construction of the Suez Canal, the ill-fated venture of the Panama Canal, and the tremendous war indemnity of 1871 drained the industrious and saving peasantry of repeated milliards. Each foreign loan that is placed on European markets is financed to the extent of 80 to 90 per cent. in Paris. But in the disposal of capital, foreign investments yield only the bare minimum of profit shown in direct interest to the country which places its capital outside its own borders. The indirect profits received and expended within the country itself, from investments in national public works and in manufacturing industries and trade, are incalculably greater than the mere interest received by the capitalist. Capital is extremely timid and fanciful in the selection of investment. Fashion, habit, the mental environment, a boom or a slump, affect millions of investors. The speculative fever may be catching, or the conservative instinct predominate for years. In France the instinctive preference for Government loans engendered by the patriotic calls and responses of 1871 and 1872 has left an indelible mark upon the habitual preference of investors.

The average extension of railway mileage in France during 17 years prior to 1905 was only 158 miles per annum. The length of lines of general interest, exclusive of local lines, on December 31st, 1905, was 24,500 miles, or one mile to 1,550 inhabitants. The railways are almost entirely *concedés*, and become State property after the expiration of the concession. The cost per mile was £27,400, little more than half the mileage cost of English railways, the entire capital invested in French

railways amounting to less than £700,000,000. Investment in new railways has practically ceased in France, as it has in the United Kingdom.

Irrigation works have been carried out with highly remunerative results by private companies or associations of small landowners to a very limited extent. There are extensive districts in France, however, where the soil is arid from its permeable nature, which, when irrigated by artificial works, show great fertility. Irrigation works can only be undertaken on a large scale by the Government, which has not yet realised its functions in regard to the extension of public works. In this direction the population capacity of the country is open to great and rapid expansion, carrying with it the corresponding increase of communication and industries.

The opening of amicable relations with the British people by the *entente cordiale* has produced an excellent effect upon the trade of France with the United Kingdom, the exports to Britain being double the value of the trade to any other country, and the imports considerably the greatest. The two countries form parts of the same geological basin, and with improved communications, such as the Channel Tunnel and harbour accommodation for large and fast steamers, with a customs union between the two countries, France would benefit marvellously, and its population capacity increase by leaps and bounds. Increase of population is no more a moral or psychological problem in France than in any other country. If the birth-rate were to remain low when the population capacity increased, the influx of foreigners would amply compensate. France has always been attractive to foreigners, of whom 1,009,415 were resident there in the year 1906, or 2·51 per cent. of the population. But the capacity of the human race for expansion is unlimited, given opportunity; and the population of France, like any other country, would double itself in fifty years.

Spain and Portugal, occupying the Iberian peninsula, possess a country of great natural resources, the population capacity of which during 200 years has been more nearly stationary than any equal area of Europe.

So striking was the history of Spain in this respect that the most trenchant argument chosen by Buckle to illustrate the baneful influence of ecclesiasticism and superstition upon national character and the persistence of poverty was provided by Spain and Scotland of the seventeenth and eighteenth centuries. The entire intellect of a country, engrossed with the business of preparing for an immaterial life in another world, and subjected, in place of reason and scientific investigation, to the authority of men reputed to have lived in ages before the dawn of modern history, was naturally unfitted for, and diverted from, the main business of life, namely, the increase of population capacity and national wealth by the construction of public works. The bigotry, the grasping avarice, the persecution of heretics, the pious frauds, the cruel murder and pillage of innocent and useful people, were venial faults of the Church of Rome compared with the deadly crime of diverting the intellect of the nation from its true work to superstitious and useless observances of a fanciful and tawdry religion.

Spain had a population of about seven millions in 1760, and shows an average rate of increase during the 140 years to the year 1900 of 0.63 per cent. per annum. During the last thirteen years of that space of time the rate is 0.46, a distinct falling-off from the average of the last century and a half. The density of population has little more than doubled since 1760; it is little better at 95 per square mile than the barren and long-misgoverned territory of Turkey-in-Europe, which carries 90.

The genius of the country in government ran, unfortunately, to the military exploitation of new countries for the appropriation of mineral wealth, a school which, with the neglect of internal improvement, led to military degeneracy and the lapse of the land from cultivation. The provinces, cultivated under irrigation by the Moors, were largely destroyed in the course of conquest by the Spaniards, and in the case of Estremadura especially have never been reclaimed. The lofty plateaus, comprising more than half the area of the country, are devoted to the most primitive forms of ranching, chiefly sheep farming, where afforestation and irrigation under

pressure would develop the finest fruit and vine country in the world.

Spain during the last century, notwithstanding its general instability of government, has extended public works of communication. The railways now connect all the provinces, and the total mileage, 11,268, gives one mile to 1,652 persons. The mineral resources have been largely developed by foreign intelligence and capital. In the southern province of Valencia the irrigation works are maintained, although not extended, and Spain is still the most extensively irrigated country in Europe. Barcelona holds its own in manufacturing industry. But the Government is still quiescent in the prosecution of public works, and the increase of population capacity, while steady, is extremely slow in the face of the more rapid rise of other European countries by the applications of science and artificial power. Emigration in 1888 was 0.42 per cent. of the population. The destination of these emigrants was nearly in equal proportions to Central America, South America, and Africa. It may be noticed, however, that emigration is nearly equal to the increase of population capacity at home, and is entirely to foreign States.

Portugal shows an increase of population during the 140 years terminating in 1900 of 0.97 per cent. per annum. A small but naturally rich country, blessed with more stable government than Spain until recently, its population is now five times what it was in 1760, and it has settled the very extensive United States of Brazil and large colonies in Africa. Perhaps no race in Europe is more prolific individually, and in no country is the pressure of population on capacity more keenly felt. Public works are extremely backward, although the density of population is now about 150 to the square mile; communications owe more to proximity to the sea coast than to public works. The mileage of railways in 1906 was 1,504, or only one mile to 3,335 persons. The country has great mineral wealth, and 50 per cent. of the value of its exports come from wines. For many years the national income has been less than the expenditure, adding largely to the national debt. The people

remain poor, and education is neglected, although no people in the world are more intelligent when educated. A great work remains to be done by the Government in education and public works, both of which would yield highly profitable results, with an immense increase of the population capacity of the country.

Switzerland being the most mountainous country in Europe, and having one-sixth of its area covered with forest, the habitable portion of the country bears similar proportions to the entire area, as in the Scandinavian countries. The density of population, however, is ten times that of Norway and Sweden, so that the 22 Cantons should be credited with the highest place in the ranks of European countries for civilisation and population capacity. The only European country outside the Balkan States with no seaboard, its trade and industries in proportion to the habitable area and population are greater in value than those of any other country in the world, the exports and imports for 1906 being valued at £101,756,000. The population of the Cantons in 1760 was so insignificant that Voltaire, although obliged to them for years of hospitality, entirely overlooks the country in his estimated census of Europe. The rate of increase of permanent population capacity is 0.51 per cent. per annum, but a large tourist and short residence population in increasing numbers makes both the population and rate of increase of capacity unknowable from registration or census returns. The rate of emigration averages 9,000 per annum, or 0.3 per cent. of the population, the destination being mainly to the United States of America.

Half the population of Austria-Hungary are employed in agricultural pursuits, so that like France this is essentially a community dependent upon the cultivation of the land for maintenance. The chief exports are agricultural produce and live stock; the mines are said to be not well worked in Hungary. Austria has a considerable amount of trade, and its manufacturing industries consist chiefly in woollens, cotton, and glass. The railway mileage was 25,300 in 1904, or one mile to 1,804 inhabitants. Railway extension has been more

recent than in the Western States of Europe, being carried on steadily by the Government at the rate of 500 miles per annum during the last twenty years. The most marked characteristic of Austrian expansion is the uniformity of the rate of increase of population capacity for centuries. That rate was higher than throughout the States of Germany prior to the empire, although the German Empire now shows a rate of increase double that of Austria-Hungary. Commercial and customs union, and the undertaking of national public works by a powerful Federal Government, with the supreme power in the hands of a clever strong-willed Kaiser, have given an impetus to the progress of the German Empire wholly lacking in the history of Austria-Hungary. The gradual loosening of the political ties of the constituent races of Austria-Hungary, with the democratisation of administrative power, exercise an unfavourable effect upon the extension of public works by the Imperial Government. Emigration, 85 per cent. of which goes to the United States of America, is 0·12 per cent. per annum of the population. About 50,000 emigrants leave Austria-Hungary annually. The total average increase of the various races is thus very nearly 1 per cent. per annum.

Modern progress in Italy dates from the establishment of the united nation, the various governments of the separated states being notoriously corrupt and inefficient. The railway system of the country, if the through lines for foreign traffic to the East are excepted, were only begun during the reign of the House of Savoy. Railway extension is still being carried on at a rate increasing annually above 162 miles. A length of 10,000 miles was open in 1902, or one mile to 3,250 inhabitants. The extensive seaboard, however, compensates to a considerable extent for paucity of inland communications, and harbour improvements, irrigation and drainage works and other important public works have been undertaken by a progressive government. Trade and manufactures are reviving, and even Germany under the empire has not yet outstripped Italy in population capacity, although exceeding her in the rate of increase.

While the average increase of population capacity during the last 20 years of last century was comparatively small, 0.65 per cent. per annum, the rate of emigration was the highest from any Continental country, averaging 0.65 per cent. of the population per annum, making the total rate of increase up to 1.3 per cent. Unfortunately, Italy has no habitable Colonies of her own, so that the constant stream of emigrants from her shores to North and South America, where they are highly esteemed as settlers, entails an annual loss of £40,000,000, equal to half her total public revenue. Italy, although naturally highly productive and the race most industrious, suffers, like most European countries, from a timid democratic government, controlled more by the ignorant section of the people than by the highly intelligent scientific section, ignored by the nation as a set of amiable and harmless cranks. The loss of the services of scientific men of the calibre of the Italian Marconi is a more serious factor in relation to population capacity than all the rest of the emigrants.

Greece is essentially a maritime kingdom, dependent on agriculture, fruit and commerce. The average rate of increase of population during the end of last century was 2.1 per cent. per annum, the highest in Europe. In recent years a large proportion of young Greeks have emigrated to the United States, the conditions of life being hard upon the people of a poor State deeply indebted and under foreign financial control. As the poorest married couples generally beget the largest families, the poorest populations tend to the highest annual rate of increase. No doubt maritime communications for internal traffic present a fine opportunity for increase of population capacity to a naturally rich country with a low density of population.

With the exception of Roumania the Balkan States are thinly peopled, with a high rate of annual increase. The extension of roads and railways and opening up of foreign trade provide markets for agricultural produce which encourage the change from ranching to cultivation of the soil, resulting in the high rate of increase of population capacity.

CHAPTER IX.

OTHER COUNTRIES.

Turkey — Egypt — Tripoli — Tunis — Algeria —
Morocco — Arabia — Palestine — Japan — China —
Argentine Republic — Uruguay — Chil  — Peru —
Brazil — Brazilian Customs — Counani — South
American States—Disadvantage of Independence—
Mexico—Mexican Losses—Central America.

THE Ottoman Empire has suffered very considerable diminution in Europe, and nominally in Africa. The severance of the Balkan States, the independence of Egypt, the loss of Tunis and Algiers to the French, the autonomy of Crete, the independence of Greece, and the purchase of Cyprus, have curtailed the statistical area of the empire, but without affecting the average density of population. In 1883 the area of the empire was returned at 1,652,542 square miles, with an aggregate population of 33,359,787. This gives 20.2 persons per square mile, and the returns of area 1,156,500 square miles, with population 24,000,000 in 1901, give a density of 20.75 per square mile.

The European portion of Turkey is only 66,500 square miles, with a density of population in the year 1906 of 90 to the square mile. The rate of increase from 1760 to 1900 was 0.75 per cent. per annum, but since 1880 the increase has been imperceptible. All public works have been stopped. The railway mileage, which was 727 in that year, has only increased to 1,201 in the year 1907. Agriculture is extremely backward, the principal occupation on the land being sheep ranching. The soil is naturally fertile, forests of hardwood trees of great value exist, with a plentiful deposit of minerals, including coal, iron, silver-lead, &c., entirely unworked. The railways give one mile to 5,000 inhabitants, and roads have still to be made.

Turkey-in-Asia extends to 680,000 square miles, with a density of 25 persons to the square mile. It abounds in ruins of ancient cities, giving evidence of the greatest density of population in prehistoric times. No country has lapsed so extensively into a desert and arid state, although the natural water supply from rainfall, snow, and rivers exists nearly unimpaired. A powerful executive government is the only hand that can deal effectively with the public works of irrigation and communications, but until the new constitutional government of Turkey has organised its financial system to allot an annual grant of several millions to these works, as the Indian Government has done for many years, no real progress can be made. With a few years of settled and peaceful administration this splendid country will be in a position to utilise the wealth of labour from the many vigorous races within its borders, for the development of the vast potential population capacity of the great deserts of Mesopotamia, Syria, and Arabia. In the meantime the immediate future prosperity of the empire lies in European Turkey where, within thirty years, with roads, railways, allodial land settlement for cultivation, and the development of mines, factories and trade, the population should be doubled and the wealth quadrupled. Constantinople, with its population of 1,100,000, is maintained mainly by the Asiatic possessions of the empire, and the remainder of the European population only represents a density in these provinces of 74·7 to the square mile, which is under the average of the ancient Roman Empire. The application of modern science and statesmanship presents a fine field for the immediate development of population capacity.

Egypt, since its deliverance from the uncontrolled dominion of the Turkish Governor, and under the rapid development of its irrigation works by a powerful executive, has progressed more rapidly in material wealth and population capacity than any European country. Between the years 1882 and 1897 the rate of increase of population of Egypt proper, an area of 12,970 square miles, has averaged 2·3 per cent. per annum. The density of population was $750\frac{1}{2}$ per square

mile in 1897, and is now over 800 per square mile. Railway extension is comparatively slow; leaving out the main line to the Soudan, the total mileage is 1,412, or one mile to 7,350 inhabitants. Even for an agricultural country this is an extremely low ratio, although supplemented by the use of irrigation canals and the River Nile for inland communication. The British officials are now content to rest from their more strenuous labours and admire the results, on the plea that the water-supply of the Nile, pending additional storage works in the Soudan, has been fully utilised. An unlimited area of desert still remains to be reclaimed, however; the water, hitherto untapped, lying in a great subterranean reservoir beneath the desert. Roads and railways are urgently required, following in the wake of artesian wells, pumping installations and irrigation farms. The Anglo-Indian methods, rigidly adhered to by the executive reared in the Indian school, have yielded all that lies in them for Egypt. The drainage and irrigation of the marshes and brackish lakes of Lower Egypt, and the reclamation of the desert uplands by pressure irrigation, require new applications of science and engineering skill foreign to India or its *protégé* in Africa.

The neighbouring State of Tripoli, although still closely incorporated in the Turkish Empire, and, in fact, directly governed from Constantinople, is the natural complement of the Egyptian desert. It lies along the shores of the Mediterranean a length of 1,100 miles, and southwards 800 miles in width, the area being 410,000 square miles. Not a single river freshens its surface, and the rainfall is so fitful that a good harvest can only be reckoned on once in four or five years. The oases watered from wells are fertile, and extensions of these areas are made with primitive appliances by the industrious Arab peasantry, the country being wholly agricultural. The reformed Turkish Government has a great work before it in the development of irrigation works for the storage of rainfall, and artesian wells tapping the vast subterranean reservoir beneath this land in conjunction with Egypt. No communications

have yet been opened up ; and the country bears evidence in the ruins of ancient cities, of former habitation by a highly civilised race to a density fairly equal to the rest of the Roman Empire. The present density of population is only 2.45 to the square mile, its population capacity being entirely undeveloped by public works. A large trade was carried on through Tripoli in former times with Wadai, Bornu, and the Western Soudan, and the caravan trade was then the mainstay of the country. This has seriously diminished of late years, probably through competition by way of the Nile Railway, and can only be maintained or revived by improvement of communications through Fezzan. The patient camel cannot compete with the locomotive, but the formation of a through motor road from Tripoli to the Soudan would reinvigorate the ancient traffic, and materially further the development of the population capacity of the State.

The Regency of Tunis passed from the feeble grasp of Turkey to France in 1881, since when the noble inland harbour of Tunis has been developed and equipped on modern lines. The only colony of France where the State expenditure is fully met by the local income, this flourishing country has made considerable progress on modern lines, and bids fair to revive some of the glories of ancient Carthage. The population has risen in density to 40.7 per square mile, irrigation works and railways have been commenced by the State, the latter extending to 713 miles, or one mile to 2,524 inhabitants. The people are chiefly engaged in agriculture and fishing, and the future development of population capacity lies, like the rest of North Africa, in irrigation.

The most valuable oversea possession of France lies in Algeria, which is very sensibly incorporated as an integral portion of France, administered from Paris as the Capital, and sends Deputies to the Chambers in Paris. The greater part of the soil consists of arid sandy desert, on which irrigation, by storage works for water and artesian wells, has made considerable progress. The density of population is 28.3 per square mile, of which 730,000, or 14 per cent. are Europeans. In the year

1904 the mileage of railways opened was 1,912, or one mile for 2,736 inhabitants. Agricultural produce and minerals are the chief staples of the country, which has a very considerable foreign trade, the value of exports and imports in 1905 being £24,500,000. Algiers, as a health resort for Europeans, indicates that the climate is well suited to a working European population, and as its population capacity increases with its public works, doubtless the primitive home of the white man will become re-peopled with a vigorous and progressive white population in ever increasing proportions. If the French Government could find another Ferdinand de Lesseps to lecture up and down France and turn the saving peasantry from their *penchant* for investment in foreign stocks to the development of their own country and oversea France, the highly solvent States of Algeria and Tunis would well repay a loan of £100,000,000 for the extension of irrigation and other public works; strengthening and building up their country to an enormous population capacity.

The only hope for the redemption of the naturally rich Empire of Morocco is the gradual growth of French influence to incorporate the management of affairs of state with Algerian policy. A powerful French resident administration to develop public works throughout the country, which is totally destitute of any worthy of the name, would immediately raise its population capacity for white men, and utilise the Berber stock, the last remnant of the white man left in his place of origin—the Atlas Mountains. Not only the superior race of men that peopled Europe after the last ice age, but the fruits, cereals and grasses, the trees and domesticated animals, the very arts and sciences which ameliorate the lot of civilised man in Europe, owe their origin to this magnificent country. The blight of the black man has fallen heavily upon the land, making it the last stronghold of superstition and cruelty. The density of population is now anything that can be roughly estimated from 20 to 25 persons per square mile, in a country that could carry as much as 1,000 per square mile with appropriate and complete public

works. Among the chief products of the country are wheat, barley, maize, beans, peas, oil, esparto, and hemp ; among fruits the fig, almond, pomegranate, lemon, olive, orange and date are common ; but agriculture is greatly neglected. The country is said to be rich in mineral treasures—antimony, iron, coal, copper, lead, tin ; the last three in considerable quantities ; while gold and silver are also found. Sheep and cattle flourish, giving rise to large exports of wool, hides and leather, for the last of which the valuable tanning timbers of the country make a peculiarly fragrant speciality. The most progressive element in the population is the aboriginal Berber of the Atlas slopes, who has retained his independence of the degraded blacks, and is the main productive factor of the country.

The Arabs are a handsome and spirited white race permeating Northern and Eastern Africa, from their home in the Arabian peninsula. The Arab is naturally nomadic, a habit which does not lend itself to material progress or the accumulation of wealth. What little he has, however, is of its kind the very best. The most delicious coffee is Mocha, the finest horseflesh has a strain of Arab blood. The most valuable instrument of the human brain for the evolution of modern science is the Arabic algebra. The Arab numerals have entirely superseded the clumsy symbols of Greek and Roman, Chinese and Japanese. The nomadic Bedouin of the Syrian desert settles down willingly to cultivate the soil where he finds facilities for irrigation. The total absence of public works in Arabia is the sole cause of the sparse population of twelve persons to the square mile.

The railway recently opened by the Sultan to Medina and Mecca is an important departure for Arabia. The religious purpose will not clash with political and commercial uses. Under the new Turkish constitution, the Arabian peninsula is fully represented by lively delegates, who will see to it that their full share of public works is allotted to the peninsula. Mesopotamia will be largely re-peopled with Arabs. In Syria the race presses hard upon the Druse, Maronite and other

Semitic peoples skirting the desert. The strongest strain in the fellaheen of Egypt is the Arabic, and the 2½ millions estimated in Arabia are only a portion of the most enterprising and spreading of the tropical races. When the population capacity of the desert sands has been developed by overhead spray irrigation, the white Arab race will occupy and multiply to its full capacity. The Arab shows the same repugnance, however, to the flooding system of irrigation carried on by the black peasantry of Egypt and India, that is in evidence among the white husbandmen of Australia and California. The Turkish Government in catering for white races must drop the Indian school and be advised by the more advanced and scientific irrigationists of America.

The small Turkish province of Palestine, 11,000 square miles in extent, or a little larger than Wales, contains a population of nearly 700,000, of whom about 100,000 are Jews. Arabic is the language chiefly spoken and about 80 per cent. of the inhabitants are Mohamedans. The density of population, 63 to the square mile, bespeaks an agricultural country poorly provided with public works. A railway was constructed in 1892 connecting the port of Jaffa (Joppa) with Jerusalem, probably for religious objects. The exports and imports amount to £1,250,000 annually, but the country is still naturally fertile, and if put in communication with markets by the construction of roads and railways should rapidly increase in population capacity. Full development to modern civilisation, however, would scarcely suffice to squeeze into it the 10,000,000 of Jews now scattered throughout Europe, North Africa, the Argentine, America, and Asia Minor. Probably like their brethren of the captivity most of them would prefer to stay where they are.

The Empire of Japan had attained, even when first opened to European trade in 1868, a very high stage of civilisation, with a system of roads and natural inland navigation which afforded liberal means of communication. Accordingly, as early as the year 1888 the density of population was as high as 268 persons

to the square mile. At the date of the last census, the population had risen to 47,215,630, a density of 290 persons to the square mile. Although the country is possessed of considerable manufactures, minerals and trade, the chief industries are agricultural and fishing. The rate of increase of population during the thirteen years prior to 1901 was 0·7 per cent. per annum. A large annual emigration also takes place to Korea, Manchuria, Formosa, the Sandwich Islands, America, and other places, probably equal to the rate of increase at home. In 1906 there were 4,783 miles of railway open in Japan, or one mile to 10,035 people. The people are crowded into one-sixth of the area of the country by the extremely broken and mountainous nature of the surface, and the immense extent of coast line to the area confines the railway system to the main valleys in the three larger islands, the total number of islands being 4,223.

The extension of the empire over a portion of the more thinly peopled continent of Asia was absolutely essential for the progressive civilisation of the Japanese people. Korea with an estimated population of 10,000,000, has a density of 141 to the square mile, and Southern Manchuria is more thinly peopled. By the introduction of public works to these countries on a greater scale than was necessary in Japan, the population capacity on the continent will rapidly expand, making room for the redistribution of the Japanese people, and improving the condition of the more recent subjects of the Mikado. The Japanese are a great irrigating race, and some portion of the deserts of Mongolia may yet reap the benefit of their genius and industry.

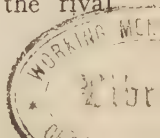
China proper, or the eighteen provinces, contains an area of 1,500,000 square miles, and a population estimated at 400,000,000; giving an average of 267 people per square mile. The dependencies of Mongolia, Manchuria, Tibet and Turkestan extend over an area of 2,500,000 square miles, with a scattered population of 19,000,000, or 7·6 persons to the square mile. These estimates, however, are unreliable, and no data exists

relating to the growth of population, which is generally regarded as practically stationary. This conclusion is the more probable, as any extension of public works even in recent years is infinitesimal in proportion to the size and population of the empire. The 4,000 miles of railway open for traffic in China give one mile to 100,000 inhabitants. The public revenues and foreign trade of this vast and populous empire are suitable for a State one-fiftieth of its area and population. The Imperial revenues in the year 1901 are returned at £17,000,000, and the import and export trade, carried on chiefly by foreigners, at £106,000,000. The industries are entirely agricultural, China being virtually a self-contained world, the bulk of the inhabitants leading a simple life, clothing the scantiest, and food cut down to the minimum of vegetable produce. A large proportion of the estimated population of China is dead. Although the people swarm about the treaty ports, and the riverine plains are densely populated, the major part of the country is hilly and subject to long-continued drought, which has depopulated entire provinces. The cities of the interior, presenting an appearance of vast extent from the suburban cemeteries by which each is surrounded for two or three miles beyond the walls, are not large. The absence of roads and the narrow streets afford no facilities for supply, and it is impossible to feed a large urban population except in the low marshy districts near the sea, where inland navigation on canals is available for heavy goods traffic. The traveller in the interior of China never sees evidence of a rural population exceeding 100 to the square mile. A country without roads, the main thoroughfares only footpaths 2 feet wide, paved unevenly with slabs of stone on the flat, moist lands, and mere foot tracks on uneven ground, give no facilities for internal traffic or communications, and cannot carry a civilised population. Any perceptible increase of population capacity in China must be preceded by a revolutionary change not only in the government, but in the education, tastes and ethics of the people. Public works on a scale sufficient to make an impression upon such a vast area

cannot be forced on the people even by an enlightened and reforming native government. The infinitesimal revenue which is the utmost farthing squeezable out of a territory nearly as large as Europe and estimated at a greater population, shows that a great mistake has been made by European nations in the anticipation of progress.

The Argentine Republic is the most progressive country in South America. With a fertile territory, partly unexplored and to a great extent uninhabited, 1,212,000 square miles in area, it has only 6,000,000 inhabitants, or 4.95 to the square mile. Public works are carried on with considerable vigour, chiefly by foreign capitalists under government concessions. The average rate of increase of population between the years 1882 and 1906 was 2.78 per cent. per annum. A large and increasing immigration assists this rise. In the year 1906, while the increase from excess of births over deaths was 1.54 per cent. of the population, the additional increase from the excess of immigration over emigration, or return home of immigrant Italian labourers, was 3.37 per cent., making a total permanent increase in that year of 4.91 per cent. of the population, which appears to establish a record for the countries of the world. Railway extension is second only to the United States of America in keeping pace with the requirements of population; in 1906 there were 12,925 miles, or one mile to every 464 people. A great measure of the prosperity of the country is due to the liberal encouragement given to foreign enterprise by the native government of Spanish descent. The serious error of taxing exports usually indulged in by governments of Latin race has been avoided here, with the result that a trade in frozen meat, agricultural produce, and valuable minerals has grown to the value of sixty millions sterling annually, or £10 per head of the population. The public revenue in 1906 was over twenty-one millions sterling, 23½ per cent. more than China with its reputed population 67 times greater than the Argentine.

Uruguay is a small State on the north side of the Plate River, which achieved independence from the rival



pretensions of Brazil and the Argentine. It is almost entirely pastoral and the population averages nearly twelve to the square mile. The rate of increase of the population during the last twenty-five years averaged 1·51 per cent. per annum with little or no immigration. Paraguay, a State double the area of Uruguay, but still more primitive, averages only 4·64 inhabitants to the square mile.

Chilé, settled by Spaniards who have lately resumed immigration, is a rich and progressive country with an average annual increase of population during the last fifteen years of last century, before the resumption of immigration, of 1·4 per cent. Its length is 2,000 miles and width generally 100 miles, with many good harbours, so that it is not entirely dependent on railways for transport. Its density of population in 1900 was eleven per square mile. The extensive desert of Tacama in the north is a source of wealth from its famous nitrates, and minerals are abundant. In 1902 there were 3,000 miles of railway open, or one mile to 1,037 inhabitants. Cattle raising and agriculture flourish, and this country's population capacity must rapidly increase, being a little over the extent of the German Empire, with a finer climate and more fertile soil.

The Spanish-speaking State of Peru has an undisputed area of 500,000 square miles, with a population of 4,000,000, a large proportion of which consists of stalwart but unprogressive Indian peasants. The density of population is eight to the square mile, and increase in the last twenty-eight years of last century averaged 1·08 per cent. per annum. The land between the Andes and the coast being desert, exceedingly fertile under irrigation, Chinese and other settlers of irrigating races are attracted. The total length of railways open in 1905 was 100 miles, in connection with mines. Ecuador and Colombia, formerly united, are still similar in population and pursuits. The density of population averages between seven and eight to the square mile. Venezuela is more pastoral and the density of population accordingly smaller, averaging 4·1 to the square mile. In 1881 it averaged 4·7 to the square mile on

30 per cent. smaller territory. The last three States appear to be entirely unprogressive, the government showing all the ineptitude of the lower Latin races. Public works are no longer undertaken by foreigners owing to the insecurity of property and investments, and the natives appear incapable of improvement.

The Republic of the United States of Brazil is greater in extent than the United States of America, but has a very different race to guide its destinies. On an area of 3,218,166 square miles, it carries a population of some fifteen millions of mixed blood, the European or white element being mostly Portuguese. About half a million German settlers in the southern province of San Paulo, 200,000 French settlers in the Republic of Counani in the north of Brazil, form an element of purity and progressive spirit which may develop this great country, but under the Portuguese ruling caste development is so slow that even including extensive immigration, the rate of increase for twenty years averages about 0.5 per cent. per annum. The density of population is on the lowest scale in South America, 4.45 to the square mile. Railways have of late, in the last five years, increased by 30 per cent. to a mileage of 12,000, or one mile to 1,250 inhabitants. The extension of a railway in Brazil, however, has little effect in the increase of population, as the coffee planter makes the extension available by the abandonment of an exhausted farm to open up new ground in the wilderness. Without exception, the largest extent of uniformly fertile territory in the world, with unlimited resources of power in the rapids and falls on its numerous and mighty rivers, with very ordinary statesmanship Brazil would have the highest rate of increase of population capacity, and attract the best blood for its development.

The administrative defects of the federal junto and provincial governments are extremely grave. The extension of public works is necessarily neglected owing to the impoverishment of the country by the paralysis of trade due to excessive import and export duties on goods and produce. The agricultural produce is abundant. European fruits and grain are reared on

the southern plateaus, where the land rises by gentle gradations to the height of 2,000 to 5,000 feet above sea level. The intermediate valleys are found extremely favourable for the growth of sugar, coffee, cotton, cocoa, india-rubber, tobacco, and other tropical produce. Wheat, and other European cereals, maize, beans, cassava-root, and nuts, are very generally cultivated. The exports consist entirely of the raw produce of the soil, and Brazil supplies half the total quantity of coffee consumed throughout the world. The heavy export duties levied upon these products by the Federal Government of Rio de Janeiro naturally restrict cultivation, confining it to the most fertile virgin soils most favourably situated for transport to the seaports.

Coffee comes chiefly from the central and southern provinces, Rio de Janeiro, Minas, and São Paulo. Not satisfied with export duties on coffee, which formed in 1906 three-fourths of the whole exports, the Government regulate the price by the purchase of the entire crop in order to store and sell it only when European prices are at a sufficiently high level. The storage of coffee accumulated to such an extent in São Paulo that a foreign loan has had to be raised, chiefly in Paris and Berlin, to strengthen the State Treasury and enable the provincial government to carry on buying without selling at a loss. The Federal Government has failed in the meantime to float further loans abroad.

Brazil has an external debt of nearly £92,000,000, and an internal debt of about half that amount. The currency is chiefly in extremely depreciated paper, in which seven-eighths of the ordinary revenue and expenditure of the government is paid. The standard of purity of the gold coinage is the highest in the world, and as gold coin is the only article not subject to export duty, it is no sooner struck and issued from the mint than it is exported as bullion to be melted up. The fineness of the coin makes it impracticable to use under the ordinary wear of commerce, but as no gold is seen or used in the country this is no disadvantage for export purposes. Foreign commerce is seriously hampered by the absence of gold currency, being confined

to the State Governments and a few rich firms of capitalists.

The export duties, which are supposed to tax foreign nations, but really prevent the extension of production and check any development of the population capacity of the country, are the perquisite of the Federal Government alone. Import duties go partly to the State or provincial governments to form their administrative revenue, as they are supposed to come partly from the pockets of the consumer. They are not only high but also uncertain in rate and amount, owing to the variations of the needs of provincial governments and officials.

The American settlers on the south bank of the Amazon in 1876 were promised by the Federal Government, among other inducements, the import of agricultural machinery duty free from their native State of Kentucky. The half-dozen settlers who had sufficient capital to survive the boycott of the local and closure of foreign markets, imported their implements, machinery and vehicles at 100 per cent. over their price in Kentucky, the local officials at Belem refusing to pass them without the payment of the provincial duties. Immigrants must pay duty on the changes of underclothing in their trunks. The enormous protective duties were again increased in 1887, 1893, 1896, and 1906. To support 149 cotton mills, employing 30,000 hands, the whole country pays over 100 per cent. protective duties upon the foreign manufactured goods which are the chief article of clothing of the inhabitants.

The great German colonies in São Paulo and Minas, which form the most productive factor of civil life, have no political power. Naturally the German Government cannot look with an approving eye on the enslavement of over half-a-million of their countrymen on foreign soil, and an impertinent "Monroe doctrine" will not always prove sufficient to intimidate the most powerful and progressive of European nations. The disputed territory of Counani on the north bank of the River Amazon, is peopled by French settlers and a race of Indians who are the most civilised and independent

in South America. The award of the territory to Brazil by a jury of Swiss arbitrators, without hearing the native and French inhabitants, who had previously organised an independent government, to represent them, cannot be said to have closed the question; especially as the Government of Brazil has made no effective occupation of the country, which is merely tacked on to the province of Para, while its seaports are recorded in the sailing directions of all countries on the authority of Brazil as "closed." The whole of this naturally rich and fertile country, as large as the German Empire, is thus placed in a state of blockade. All foreign trade has ceased, and the land might be desert so far as its capacity for human occupation is concerned. The only hope for this part of the country claimed by Brazil lies in the recognition of its independence, when the 200,000 French creoles, with their millions of Indian fellow citizens, would proceed with the extension of public works and trade to make their country the most flourishing and progressive part of the South American Continent.

With an average population density not exceeding five persons to the square mile, the Continent of South America, naturally the most fertile portion of the world, is the most thinly peopled and unprogressive.

This results entirely from political misfortune, the barrier to the extension of public works being the lack of the most beggarly elements of statesmanship persisting throughout three centuries of European settlement. The Latin races are not wholly to blame for the fiasco. British, Dutch, and French Guiana are as backward in development as the quondam colonies of Spain and Portugal, which are actually less progressively habitable under local republican government than they were in the worst days of European domination. It was an evil day for each of the Spanish and Portuguese colonies when they declared and won their independence of the mother countries. Successive revolutions checked the flow of immigration from Europe, and diverted it to the more settled States of North America. The loss of the higher education of the old universities of

Europe to the rising generations who ruled in the Latin States was manifest in the lack of true statesmanship and the low tone of political morality. Capital and skill were not attracted to public works, except on the banks of the River Plate, where foreign enterprise was attracted by special natural advantages and tolerated by rulers more enlightened than those the rest of these infantile States were blessed with. But separation from European support as well as control has been an unqualified disaster for every colony which has set up a state in the new world, as well as a grievous loss to the European countries from which they were the offshoots. It is acknowledged on both sides of the Atlantic that there is greater liberty under the British Crown than in the American Republic. Material progress has been immense in the United States, but there is no possible doubt that it would have advanced faster and farther in the same interval as an integral part of the Mother Country. Great Britain is a prosperous country with a glorious history, but the Napoleonic wars would probably have been a short-lived struggle had Greater Britain continued its existence during last century. Liberty and independence in small communities is a beautiful political ideal, but, as the whole is greater than its part, a whole nation working and welded together in all parts of the world, interchanging products freely, and mutually helpful with capital and labour, is infinitely more progressive than any number of detached and powerless republican states. The disintegrating policy of the nineteenth century has, however, come to an end. The comity of nations has paused for reflection, watching the wonderful results from modern German unity, and the new century will certainly see a linking up of new and old states, the re-establishment of nations upon a decent family or racial basis, and the tinsel of revolution scrapped.

Of the countries in the Spanish Main the Federal Republic of Mexico, under the able leadership of President Porfirio Diaz, has long been the most progressive. Between his accession to power in 1884 and the year 1900, the rate of increase of population has been 1.04

per cent. per annum. Of the estimated population, 13,545,000, only 3,500,000 persons are taxable, the remaining ten millions being irresponsible Indians. Indirect taxation, however, especially on textile fabrics, is high—for the encouragement of woollen and cotton spinning and weaving, and other branches of industry—yet the bulk of the imports consist of textiles and other protected goods, making the cost of clothing and other necessities of life high, and depressing the population capacity of the country.

The density of population in 1888 was 15·37 to the square mile, and in 1900 it had risen to 17·66 per square mile. The country comprises one of the richest and most varied zones in the world, but from various causes these resources have never been fairly developed. Chief among these are the small proportion of the white population, the cessation of European immigration caused by frequent revolutions, and the prevalence of superstitious religions with their paralysing effects upon the intellects of the people. In 1907 there were 13,995 miles of railway open, or one mile to 964 inhabitants. The railways have in a large measure been built by American and English companies, chiefly for through foreign traffic and the development of mines. The mineral wealth of the country is very great; silver and gold, copper, lead, and quicksilver, iron and coal are the leading products of the mines, which are mostly in foreign proprietorship although worked by native labour under European or American superintendence. The principal crops are maize, wheat, barley, chile-pepper, sugar, coffee, cotton, tobacco, vanilla, flax, grapes, and all kinds of tropical fruit. The maguey or Mexican aloe yields a favourite beverage, “pulque”; and other species of the same plant supply pita-flax and sisal-hemp. The forests abound in mahogany, rose-wood, ebony, and caoutchouc trees.

The great natural wealth of this country does not enrich the bulk of the population. A low density of population is usually associated with individual poverty, and the native Mexican is no exception to the rule. For centuries Mexico has provided the currency for the

commerce of the vast Pacific with its bordering countries. From scores of foreign-owned Mexican mints the roughly stamped silver dollar has issued to form the standard of value for the foreign trade of China, and as far south as Singapore, Manilla, and the American Pacific coasts. The profits from these enterprises and from the mineral products and public works of the country have been realised mainly by the enterprising foreigners to whom their development was due, and the labour forming this wealth has received but a scant proportion of the reward. The prolific silver-gold mines of Zacatecas, owned by two families of bankers, one in Norwich and another in Florence, paid all wages in silver and reaped the profits in gold. The golden harvest left the country to enrich Europe; while the silver, depreciated on international exchanges to half its former value, remained or was sold abroad at a loss of 50 per cent. to the unfortunate labourers. The railways have been constructed by concessions to foreigners, by which they become partners in the ownership with the Mexican Government to an extent exceeding 50 per cent. The profits from increasing traffic accordingly disappear abroad to form the bulk of the wealth of European and American millionaires, and a permanent tax upon the labour and trade of the country. The foreign held debt is £32,000,000, but the foreign owned profits on minerals and public works are an infinitely more onerous burden upon the population, almost nullifying the influence of their development upon the increase of population capacity. The national revenue of this great country is not quite £10,000,000 annually, and the total value of foreign trade under fifty millions sterling.

The small Republics of Central America are chiefly the result of the vicious "Monroe doctrine," and comprise Guatemala, Costa Rica, Honduras, Nicaragua, and Hayti, with the recent addition of Panama. The most prosperous of these States is Guatemala, which contrasts very favourably with the neighbouring colony of British Honduras, absolutely stagnating under "enlightened" British rule. Guatemala has a population density of 40 to the square mile, with a considerable proportion

of Spanish blood. Railways extend to 480 miles or one mile to 3,500 inhabitants. The next in progressive rank is Costa Rica, carrying 15 persons to the square mile with 345 miles of railway, or one mile to 1,000 inhabitants. Nicaragua with eight persons to the square mile has 300 miles of railway, or one mile to 1,333 inhabitants. Three-fourths of the people are of mixed blood, the remainder Indians. It is chiefly known as the site of an ill-fated ship-canal scheme, now in ruins. Honduras has a population density of 18 to the square mile, mostly aboriginal, and has no public works but a load of six millions sterling of repudiated debt. Hayti has 162 full-blood negroes to the square mile, it has no public works, and its commercial prosperity has been almost annihilated by repeated revolutions. It is rich in minerals, hardwoods, and precious metals and is probably the most fertile spot in the West Indies. Though unprogressive it is a self-contained agricultural country, and is probably the earthly paradise of a negro race whose requirements from civilisation are few and which would be unhappy without occasional orgies. The mixture of the white races with negro or Indian blood has never proved an economic success, and the isolation of mixed negro races in Hayti has gone far to show their capability in the development of the population capacity of a tropical country on their own lines. The result of the isolation of the Central American Republics from the benefits of European immigration, on the other hand, indicates that the boasted "Monroe doctrine" of the spread-eagle American is a failure.

CHAPTER X.

GREATER BRITAIN.

Canadian Dominion—Table—Canadian Protection—
Canadian Preference—C.P.R.—British Guiana—
British Honduras—Australian Commonwealth—
Australian Immigration—Faults of Imperial Misrule—
—New Zealand—Polynesia—British West Indies—
British South Africa — Table — Zulu Increase —
Colour Problem—Natal—British Trading Colonies—
—Indian Empire—Table—Indian Populations—
Indian Public Works.

THE colonies of Great Britain, on the dismemberment of the Empire by the colossal blunders of George III. and his Ministers, found a new nucleus for their partial restoration in the portion of the American Continent won from the French Government in 1759, only a few years before the secession of the English colonies. The Dominion of Canada owns a territory nearly as large as all Europe, but a large proportion of the land lies within the Arctic circle, and about half the entire country, that lying to the north of the 60th parallel of latitude and the eastern province of Labrador, is in the present state of civilisation uninhabitable for an agricultural people. The following table shows the population of the Dominion, the density at each census over the aggregate territory occupied and unoccupied, and the

average yearly rate of increase of the population :—

Year.	Population.	Density, Persons per Square Mile.	Rate of Increase per cent. per Annum.
1841	1,538,500	0.43	4.2
1851	2,380,988	0.64	
1861	3,182,418	0.85	2.9
1871	3,635,024	0.94	
1881	4,324,810	1.15	1.3
1891	4,833,240	1.29	
1901	5,371,315	1.43	1.7
1907	6,504,000	1.74	

The total area of cleared lands in the year 1906 was 14,102,323 acres, or 1/169th of the total extent of the country; so that the density of population on the occupied land of the country is actually 294 persons to the square mile, slightly over that on the German Empire. This indicates in a new country a very high development of public works and industries, large bulk of produce, with great facilities for marketing. The railways of the Dominion extend to an aggregate of 17,800 miles, or one mile to 370 inhabitants. In addition to the railway system, the settled parts of the country enjoy facilities for water-borne transport equal to a great inland oceanic navigation, on the St. Lawrence, the Mackenzie, and other rivers, and the great lakes.

The great slump in the rate of increase of the population was coincident with the autonomous legislation of the separate representative colonial chambers. Each industry sought to protect its operations from competition, not only by foreign nations, but also by the Mother Country, whose misguided politicians strove to

erect the colonies into foreign countries. The professions sheltered themselves from British professional competitors by the enactment of alien laws prescribing two years' residence before being permitted to practice in any part of Canada. Even the unskilled labourer was hedged in by prohibition of labour contracts outwith the Dominion. Down to the end of last century these barriers show remarkable efficiency in the diminishing rates of increase of population, notwithstanding the immense and rapid extension of railways and other facilities for trade and industry. The construction of the Canadian Pacific Railway was carried out at an average speed of 2.6 miles per day. Although the last spike of this great work was driven in November, 1885, and the road was opened for general traffic in June, 1886, the growth of population in the Dominion during the following fifteen years was under the average of 1.1—quite an ordinary European average.

The awakening of Canadian statesmen to a sense of the detrimental effect of the narrow policy of protection against the Mother Country was first shown by Sir Wilfrid Laurier's move for preferential duties in Canada in favour of the admission of British as against foreign goods. This led to the denunciation of the ridiculous treaties with foreign nations which ranked British colonies in regard to customs duties as foreign nations, the result of a century of Little Englander statecraft. The colonies themselves felt the relief of being freed from interstate duties by federation into one consolidated Dominion. The unanimous voice of the Colonial Premiers at their meeting in London, following upon the Canadian start, was for preferential trade within the Empire. But they were met by a fanatical party Government, which inconsistently marks its devotion to the fetish of "free trade" by conserving the barriers of Colonial customs against British trade as if the colonies were the foreign and hostile countries all British Governments have so long aimed at creating. The great achievement of the Canadian Dominion in the construction of the Pacific Railway from 1880 to 1885 had no effect in raising the population capacity of the

country, owing to the lack of a liberal policy with relation to Britain. The policy of selfish protection between one portion of the Empire and another is usually fatal to the growth of the non-capitalist section, as public works cannot be undertaken without the capital. But in this case, although the capital was provided for a single great public work to establish a through route across the Empire, it had no effect upon the capacity of the country it passed through, partly because the new lands opened up to markets by the line were occupied by old settlers migrating from exhausted lands to exploit the great wheat belt of the West, Brazilian fashion, instead of by fresh immigrants; but mainly because of legislative barriers to immigrant trade and labour. The moment these barriers are sufficiently lightened immigration and settlement by new people takes effect, and the population capacity due to the new public works is realised. Statesmanship, like faith, without works is dead; but works are not only impracticable, but avail little or nothing if executed without unselfish Imperial statesmanship, welding the Empire into one nation, free from all internal fiscal and labour barriers.

Another cause of the stagnation of Canada after the formation of the Canadian Pacific Railway must not be overlooked, as it has an important bearing upon the general principle of the economic extension of public works. The Canadian Pacific Railway was not built directly by the Government with capital raised on the credit of the nation. The capital was raised upon the security of an enormous land grant from the Government and the line constructed by a company of adventurers, which company, being not only proprietors of half the area of lands opened up and served by the railway, but were entire owners of the public work; the moiety of lands retained by the Government were at the mercy of the company who owned the line. Settlers on Government lands could not place a ton of goods on the market except at the pleasure of the rival land company. Parliamentary rates are placed at the highest limit the traffic will bear, and there are many ways of working

differential rates within the limits of the law so as to direct the profits into the coffers of the railway land-owner. The modern Government of the Dominion have made this discovery, and no railway concession is now made on the land-grant system. The Anglo-Saxon Governments have not yet progressed so far in wisdom as the French and German Governments, who either make the railways themselves or grant *concedés* on a terminable lease, so that the railway is at least after a time destined to become national property. All public works should belong to the nation, whether made by the Government or by joint stock companies; and no distinction need be made in discussing the subject, for the mere detail of the weaker governments delegating their most important functions to public companies formed mainly for the pursuit of profits.

British Guiana is a semi-Crown Colony in South America, possessing administrative and legislative councils, half of which are composed of elected members and half officials appointed by the home Government. Practically no improvement has been effected in the population capacity of the country since it was taken over from the Dutch by the British. Part of the territory was lost by the arbitration proceedings with Venezuela and Brazil, but the greater extent of the country has never been effectively occupied. The portion settled consists of 280 square miles of swamp land along the coast, the Government having done nothing to open up the interior by river navigation, with the necessary improvements by slipways to carry vessels past the numerous falls and rapids. One-third of the population consists of East Indian coolies imported under bounties and contracts, and a large proportion of the remainder are Chinese and West Indian coolies. The population of the settled portion of the country, which is only one-three hundredth of the whole, has a density of about 1,000 to the square mile, and some 10,000 native Indians occupy the interior. The increase of population in the settled part of the country was at the rate of 0.75 per cent. per annum during the last twenty-five years.

British Honduras is a Crown Colony which has not only stagnated under Colonial Office rule, but has almost lost its original value to the Crown. The greater part of the lands were sold in the early part of last century to London merchant firms for the logwood growing on it. The property remains in the same hands, but has entirely lost its value owing to the fall in the price of logwood from £100 down to £10 per ton. Out of 7,562 square miles of fertile territory, only 78 square miles are under cultivation; public works are undreamt of, and the population of this naturally rich tropical country, which is not unhealthy, has an unincreasing density of five to the square mile. The population being mainly confined to the area cultivated, however, its actual density on that area is 513 persons to the square mile. Public works of communication to open up the country to markets for tropical produce would lead to the settlement of millions of people. This British colony is a standing scandal to the enterprising State of Guatemala on its borders.

The Australian Commonwealth, taken as a whole, gives similar results from the changes of immigration policy to those shown in the case of the Canadian Dominion. The area of the Commonwealth is so extensive—nearly three million square miles—that, beginning at nothing with the commencement of last century, the population capacity of such an enormous area must take a corresponding period of time to develop perceptibly. In the year 1881 the population averaged 0.75 per square mile of the whole territory, and the industries and settlement being largely pastoral, the density of the occupied portions would have a low average. In 1888 the estimated population gave an average density of 1.035 to the square mile, the census of 1901 gave 1.29 per square mile, and the estimated population of 1907 gives the density at 1.4 per square mile, being nearly 4,200,000 persons. The average rate of increase during the seven years from 1881 to 1888 was 3.93 per cent. per annum; during the 13 years from 1888 to 1901 it was 1.59 per cent. per annum; and the last six years, 1901 to 1907, show an increase to 1.75 per cent. per annum. Australia

shows no lack of enterprise in the extension of public works; railways in 1907 were opened to a length of 15,028 miles, or one mile to 280 inhabitants. These were made entirely by the direct enterprise of the respective Colonial Governments, the capital being raised in Great Britain on Colonial Government security. They pay in the aggregate a sufficient return upon the capital to meet working expenses, maintenance, and interest on capital, so that they cost the Government nothing in the meantime. Without a strong government policy on public works the Commonwealth would make no progress. Australia, with the exception of the north-east, east, south and south-western coast districts, is an arid country, with a permeable surface incapable of retaining the scanty rainfall. Roads, stock-walks, and railways are essential to settlement of the pastoral districts, and even the richest mines cannot be developed without great Government undertakings for water-supply. Closer settlement is impracticable individually, without the powerful hand of the Government preparing the ground by water-supply and works of communication. Nowhere in the world is this recognised more clearly than in Australia. There is no twaddle from any political party about automatic growth; all that is run down in England as Socialistic legislation is the order of the day at the Antipodes.

The insidious doctrine of 1885 that over-sea Britain was no integral part of the country, and that barriers of protection might be set up between the provinces or colonies without detriment to the country, bore its bitter fruit in Australia as in Canada. The same period that saw the terrible slump of immigration and lowered rate of increase of population in Canada shows a similar collapse in Australia. From nearly 4 per cent. per annum the growth of population fell to $1\frac{1}{2}$ per cent. over the same era. The cause was the same: "Australia for the Australians." That a small community of pioneers in the settlement of a continent should arrogate to themselves the sole right to the possession and use of the unoccupied lands weakly handed over to the local governing bodies on the coast by a panic-stricken

Imperial Government, was accepted as an acknowledgment of economic independence of each unit, the same as a foreign country, the natural corollary from which was high duty protection against the Mother Country's products, and the boycotting of fresh immigrants. The commencement of a new century has seen the repudiation of these economic falsehoods by the Colonial Governments, accompanied by a remarkable revival of the former high rate of increase of the population of the Australian, as well as the Canadian, colonies. Australia has not the advantage of a great country like the United States on its border, from which to draw immigrants to fertile wheat lands, and Australian agriculture is too dependent upon irrigation for the attraction of rushes of individuals in haste to get rich. But although far removed from other countries of teeming populations, and unfit for close settlement without irrigation works on a great national scale, in course of time, by the growth of national public works, Australia will ultimately carry a greater density of white population than Europe or America. Irrigated soil always has carried the greatest density of population; and a white race determined to protect its purity of blood, leading the strenuous life, building up manufacturing industries, and extending public works by means of powerful and popular local and federal governments, will not lag behind the coloured races of inferior capacity in the race of survival or competition of numbers.

The Imperial Government—imperial only by courtesy, for it determines still to confine its economic rule to that infinitesimal corner of the Empire, the three kingdoms—still adheres strictly to its narrow policy of *laissez faire*. "Free trade" does not mean customs union within the Empire. The British Government is absolutely indifferent to the progress of public works in the self-governing colonies. No assistance is rendered by the Government to departing emigrants, for these are leaving their country, not for its benefit on a wider field, but to build up what is economically a foreign country. And every man and woman in the three kingdoms is practically the poorer by the ineptitude

of the British Government. With the richest heritage the world has ever seen allotted to a single race, they are not one pennyworth the better for it, for they cannot enter in even by deputy to possess it. Its markets closed by protective duties, its lands alienated to local governments, access restricted by high passage money, and settlement rendered impracticable by the lack of State capital, the Australian colonies are non-existent for the majority of the people of the United Kingdom, and for the remainder not good enough.

The dominion of New Zealand is more fortunate than the neighbouring continent of Australia in climate and water supply, for the needs of immediate settlement. An insular country with numerous natural harbours, the universal medium of cheap communications lies ready for the pioneer settler by maritime navigation. Public works have been strenuously undertaken by the colonial government, 2,571 miles of railway being open, or one mile to every 370 inhabitants. The annual rate of increase of the population of this colony has continued higher than that of most other self-governing colonies. The rate for the eighteen years between 1888 and 1906 was 2·46 per cent. per annum, and during the seven years prior to that period, 3·08 per cent. per annum. The density of population in a colony nearly equal in area to the British Isles was, in 1881, as high as 4·7 persons to the square mile; in 1888 it had risen to 5·8, and in 1906 to nine per square mile. Little over one-forty-fifth of the area of the country is under cultivation and one-fifth of the remaining area is occupied by permanent pasturage. Thus as an agricultural country the density might be taken as 360 to the square mile, and as pastoral at forty per square mile, both of which ratios are well over the usual density of countries engaged in similar pursuits.

The separatist policy of 1885 has to some extent affected the rise of this flourishing colony, although not to an equal extent to the damage done to the other self-governing dominions. Personal tales of hardship, pecuniary loss and inhospitality are the chief evidence of the existence of the period of colonial selfishness

and Imperial folly in the end of last century. At this stage in the colony's existence the annual rate of increase of population should have advanced by 20 per cent. instead of falling off in that proportion. The progress of public works and of statesmanship, apart from the separatist economic movement, has been the greatest in proportion to the extent of the territory of any of the colonies, and this in spite of the immense distance by which it is parted from the colonising countries.

The Fiji Islands are a British Crown Colony with a considerable native Polynesian population and a few Europeans and Indian immigrant coolies. The area is 7,740 square miles, and the density of population averaged in 1881 the small number of 16·4 to the square mile, although the islands are extremely fertile, with fine climate, healthy for Europeans. The population is steadily decreasing, notwithstanding immigration, the usual fate of Polynesian natives attending the introduction of European civilisation; the density in 1888 being 16·2, and in 1901 it had fallen to 15·5 to the square mile. The rate of decrease was between 1881 and 1888 by 0·0019 per cent. per annum, and from 1888 to 1901 it decreased at the rate of 0·0035 per cent. per annum. The other British possessions in the Pacific, Papua and the Pacific Islands; the latter existing in nine separate groups at considerable distances apart, are occupied under similar conditions, thinly peopled, and the native inhabitants gradually drawing towards the ultimate extinction of the race. They will probably be re-peopled in course of time by a white race from Australasia.

The British West Indies have a total area of 13,750 square miles, inhabited by negroes and mulattoes in nearly equal proportions, with a few white people. The density of the population has remained practically unchanged during the last twenty years of last century at 100 persons to the square mile. The falling market for cane sugar and the slow development of a fruit growing industry to replace it, with the irresponsibility of the negro temperament, have much to do with the stagnation of the West Indies. With a fertile soil and tropical climate, the racial problem is the chief

difficulty in the way of improvement, and its biological treatment appears beyond the scope of the British Government.

British South Africa presents a very different aspect of the problem of population capacity to that of any other country or colony, being a highly progressive white man's country with an overwhelming majority of black races increasing by virtue of the statesmanship and public works of the white minority at a much higher rate of increase than the white race that provides the stimulus. The present treatment of the black problem in South Africa will inevitably lead to race suicide of the whites, and in the Federation Conference now sitting, the political and social status of the black races is the most serious difficulty in the way of federation.

The following table gives the area, black and white population, and density of each race, with the rate of increase of the black and white population in Cape Colony :—

Year.	Colony.	Area, Sq. Miles.	Population.		Density.		Increase.	
			White.	Coloured.	Wh.	Col.	Wh.	Col.
1865 ...	Cape ...	276,995	181,592	314,789	0·7	1·14	} 2·7	} 4·5
1891 ...	Cape ...	276,995	376,987	1,150,237	1·36	4·2		
1906 ...	Cape ...	276,995	580,380	1,825,172	2·1	7		
1906 ...	Natal ...	35,371	97,109	1,011,645	3·3	35	} 2·83	} 3·02
1906 ...	Transvaal	111,196	297,277	972,674	1·86	8·7		
1906 ...	Orange River ...	50,000	143,419	241,626	2·87	4·83		
1906 ...	South Rhodesia	143,830	12,623	593,141	0·09	4·1	} 2·7	} 4·5
1906 ...	Basutoland	10,293	975	347,731	0·09	34		
1906 ...	Bechuana- land ...	275,000	1,004	119,772	0·006	0·4		
1906 ...	Swaziland	6,536	890	84,601	0·13	13	} 2·83	} 3·02
1906 ...	TOTAL ...	910,221	1,133,677	5,196,362	1·27	5·82		

In British South Africa the coloured population outnumbers the white by $5\frac{1}{2}$ to 1, but in the Colony of Natal the disparity reaches the enormous proportion of $10\frac{1}{2}$ coloured persons to 1 white person. The rate of increase of the black over the white element in the Cape Colony, where the former is supplemented by immigration

is still very high, and in Natal it is stated to be nearly four to one. The Zulu section of the widely-spread Bantu race had for centuries existed on a warlike footing, the social and matrimonial arrangements aiming at the rapid replacement of the losses from war and cruelty. British protection has beaten the spears into plough shares, and a savage fecundity adds to the numbers of an irresponsible people at a rate of increase from the superiority of births over deaths probably never excelled in the history of the human race. The survival of the fittest is not necessarily the survival of the best or highest intellectual or ethical type of humanity. The environment in which labourers are suitably clothed in a ragged shirt and trousers is more fitting for the survival of a lower type of humanity than the European. Manual labour under tropical conditions in an arid climate may be adapted to the requirements of the white man under liberal terms as to payment, quarters and social conditions ; but these are not likely to be developed in competition with a plentiful supply of black labour willing to work on a lower scale. The enormous rise of the rougher industries of mining and agriculture in South Africa creates a demand for the lowest type of labour, fitting in with the protected expansion of the prolific Zulu race.

The growth of South Africa would be impossible without the capital, superintendence or organisation, and the statesmanship of the white men. Public works and productive industries are beyond the mental powers of the native African, and the population capacity created by these, although filled in mainly by the increase of the natives, depends wholly upon the presence of the whites. White labour could be applied if the blacks disappeared, but the disappearance of the white element of the population would at once diminish the population capacity of the country even for the coloured natives to the low standard it had attained prior to European immigration. Railways would cease to convey traffic, the mines would be closed, agricultural produce would diminish to a quantity barely sufficient to supply local daily needs, and every evidence of

civilisation would speedily disappear. Famine, war and pestilence must thin out the numbers of the helpless and irresponsible sable subjects of His Majesty, the moment the guiding and ruling hand is withdrawn, to the normal capacity of a country ruled and worked by uncontrolled barbarians.

The colour problem is most prominent in the colony of Natal, where it is accentuated by the presence of 112,126 Asiatics, forming 10 per cent. of the population. These were introduced for the provision of labour on sugar and other tropical produce plantations on the coast, owing to the inefficiency of Kaffir labour. The higher scale of intelligence developed in the Indian races, however, adapts the coolie on the expiration of his indenture to take up commercial pursuits, in which his lower standard of living enables him to compete only too successfully in the race for personal wealth, and ultimate social and political influence, with the Europeans upon whom the burden of government and industrial progress rests. There are 935 miles of railway open in Natal, or one mile to 103 whites and 1,080 blacks.

The port of Durban has been developed, by clearing the bar to a depth at low water of 31 feet, into the only harbour of any importance on the south-east coast. This has led to Natal having the chief through traffic to the interior, the principal coal export and bunker trade, besides supplying the railways, and has caused the rapid realisation of the coal and other mineral wealth of the country. The position of the English race is in an extremely perilous state, notwithstanding their present political predominance, the social effect of the competition of coloured labour, and the swamping effect of the rapid increase of the coloured population, put their small defensive force of 5,774 militia and constables, only mobilised on clear indications of a coloured rising amid a clamour of protest in the British Parliament, in a relative insignificance that must ultimately prove fatal to peace, and lead to an overwhelming massacre. A firm policy must be inaugurated in South Africa, and especially in Natal, to prevent the outrageous

rate of increase of the black parasites of civilisation. British marriage law should be the same for all colours of British subjects. The weakness of the white rulers of Africa in maintaining polygamy among the Zulus, while putting an end to the war and rapine whose wastage it was the function of polygamy to replace, is only excused by the fear of the cant of the English parliamentary party which insists upon the Zulu right to "free trade" in wives.

The remaining British possessions, namely, British West Africa, British East and Central Africa, and the islands in the Southern Atlantic and the Mediterranean, are trading colonies with little or no permanent white population. The amelioration of tropical climatic conditions by scientific investigations and sanitary appliances for combating malaria and other tropical diseases will, no doubt, in the future lead to white settlement. Meantime, a rapid increase of the native coloured inhabitants is taking place, as public works are constructed by the British Government. The development of these possessions adds indirectly to the population capacity of the rest of the Empire, especially to the centre of its trade—the British Isles.

The Indian Empire has an extent of 1,766,597 square miles, nearly equal to the area of Europe. A very large proportion of this area, however, consists of sandy desert, portions of which have been recently reclaimed by irrigation, the most important public work in India, as it must ultimately become throughout the whole of the British Empire. The increase of population takes place in the aggregate slowly, being confined to the provinces and States influenced by irrigation works undertaken by the British and native governments. The census of 1901 gives a total population of 294,361,056 so that it is now generally quoted as three hundred millions, or nearly 170 persons to the square mile. Between the census of 1881 and that of 1891 the calculated yearly rate of increase of population was at least $\frac{1}{2}$ per cent. per annum. From 1891 to 1901 the aggregate rate of increase over all India, including the native States, was 0.245 per cent. per annum. The

increase was greatest in the aggregate of the British-ruled provinces, an area of 1,087,204 square miles, where the rate of increase was 0·482 per cent. per annum. In the States and agencies governed by native rulers there was a decrease on the aggregate population of 0·547 per cent. per annum. The provinces and States both under British and native rule, however, show great differences in variation of population capacity.

BRITISH TERRITORY.

Province, State or Agency.	Area in Sq. Miles.	Population 1901.	Density per Square Mile.	Rate of Increase or Decrease per cent. per Ann. previous 10 Years.
Ajmer-Merwara ..	2,711	476,912	176	— 1·027
Andamans and Nicobars ..	3,143	24,649	8	—
Baluchistan ..	45,804	308,246	6·7	—
Bengal	115,819	50,722,067	429	+ 0·284
BOMBAY :				
Bombay ..	75,918	15,301,077	201	— 0·41
Sind	47,066	3,210,910	69	+ 1·168
Aden	80	13,074	163	— 0·024
Burma	236,738	9,237,654	39	— 0·912
Central Prov. and Berar	100,345	11,991,670	119	— 0·802
Coorg	1,582	180,607	115	+ 0·436
Eastern Bengal and Assam	106,130	30,961,459	291	+ 0·956
Madras	141,726	38,209,436	270	+ 0·774
N.W. Frontier Province ..	16,466	2,125,480	129 }	+ 0·764
Punjab	97,209	20,330,339	209 }	
UNITED PROVINCES :				
Agra	83,198	34,858,705	419	+ 0·176
Oudh	23,966	12,833,077	535	+ 0·144
Total British Territories	1,087,204	231,899,507	213	+ 0·482

NATIVE STATES.

State or Agency.	Area in Sq. Miles.	Population 1901.	Density per Square Mile.	Variation per cent. per Annum previous 10 Years.
Baluchistan Agency	86,511	502,500	5·8	—
Baroda State ..	8,099	1,952,692	241	— 1·016
Bengal States ..	32,773	3,940,462	122	+ 0·828
Bombay States ..	65,761	6,908,648	105	— 1·45
Central India Agency ..	78,772	8,608,781	109	— 1·638
Central Prov. States	31,188	1,631,140	52	— 0·475
Hyderabad State..	82,698	11,141,142	135	— 0·343
Kashmir State ..	80,900	2,905,578	36	+ 1·422
Madras States ..	9,969	4,188,086	420	+ 1·317
Mysore State ..	29,444	5,539,399	188	+ 1·205
Punjab States ..	36,532	4,424,398	121	+ 0·378
Rajputana Agency	127,541	9,723,301	76	— 1·891
United Prov. States	5,079	802,097	158	+ 0·121
Total Native States ..	679,393	62,461,549	92	— 0·547
Grand Total India ..	1,766,597	294,361,056	167	+ 0·245

Although the native ruled States of India show a considerable decrease of population capacity in the aggregate during the last ten years of last century, several States as Kashmir, Madras State and Mysore have been more prosperous than any of the provinces under direct British administration. Famine produced by prolonged drought in the British Provinces accounts for the generally low rate of increase, and had it not been for the continuous exertions of the administration in carrying on irrigation works in the famine-stricken provinces, the slight increase of population must have been replaced by a deplorable decrease. An area equal to that of Great Britain and Ireland is now cultivated by artificial irrigation in India, but this area is only a small proportion of the great arid territory.

The greatest decrease of population in any State is in that of Rajputana, which embraces the greater portion of the Thar or great Indian desert. Being under native administration it has not the benefit of sharing in the expenditure of the annual grant of several millions sterling from the Indian Treasury for the extension of irrigation works as an insurance against famine. Public works of communication also are sadly required for what would be the finest wheat-growing country in the world if watered and roads and railways constructed to open up markets. The work of the British Raj has been beneficent so far as it extends, but population statistics indicate that the work proceeds slowly, and that its extent is limited by political as well as financial considerations. If the agitation for an increase of the native element in the councils of the Indian Empire were conducted with a view to the more rapid and liberal construction of public works, it would be deserving of every support from white and black. But the contrast of the results from native and British administration indicates rather the desirability of more exclusively European control, with a firmer administration by the works departments. The British Indian official is a fine fellow, who shortens his life for a foolishly moderate salary, but the serious contemplation of the work still before him and generations of his successors would be more useful to the State he serves than any quantity of mileage statistics of railways and canals already opened. India is a poor country and thinly peopled, the only means of increasing its population capacity and the wealth of its people is by the extension of the works of irrigation and communications. On irrigation works the total expenditure by the Government has only amounted to £32,000,000, and as the works yield a revenue showing a net return of 7 per cent. annual interest on their capital cost, it is evident that the British-Indian Government has made no pecuniary sacrifice even of the most temporary nature for the preservation of the people. The railways opened in 1907 were only 29,571 miles in total length, or one mile to 10,140 inhabitants. Those railways cost £256,759,000,

and although constructed mainly for purposes of military strategy, they yield net returns, after charging to expenditure interest on capital outlay and sums on account of redemption of capital through annuities (that is, interest and sinking fund), of a clear additional revenue of 6 per cent, to the Government. The people of India are paying to their Government twice as much as they would be charged in the open market for the use of the capital spent on public works. This unnecessary burden on the development of public works limits their undertaking and explains reasonably the slowness of the evolution of the population capacity of India under the British Raj.

CHAPTER XI.

THE GROWTH OF CITIES.

Necessity for Cities—Ancient Cities—Mediæval Cities—
Walled Cities—London—Table, Growth of London
—“ The City ”—London Trade—Effects of Rating
—Specialities of Cities—Public Works—Lancashire
Towns—Government Control of Communications—
Colonial Cities.

THE population capacity of cities increases more rapidly than the population capacity of the rural districts, or of the country taken as a whole. The increase in the density of population is generally due in a large measure to the growth of cities and towns. The products of industrial manufactures are entirely derived from the workers and machinery concentrated in cities. Where they are the result of factories erected apart from municipal life, the necessary assemblage of organised labourers speedily takes upon itself the municipal organisation and government, to administer law and order, and carry out the public works required for water supply, sanitation, public lighting and cleansing, streets and roads, parks, schools, and all the essentials of city life.

The earliest forms of civilisation involved the erection of cities, which may be regarded as the essential characteristic distinguishing civilisation from a savage state of society. Rural life enjoys civilisation from its connection with the cities, and in virtue of the supplies it receives from them of the manufactured essentials. The population capacity of a city depends upon the same factors as the population capacity of the country as a whole, namely, government and public works, or the easy access to markets.

The most remarkable city of ancient and practically prehistoric times for size and power was Babylon. The chief city of an irrigated country, Babylon owed its enormous extent, containing it is estimated by George Smith at least eight millions of people, to its irrigation canals being used for transport by inland navigation. Without railways, tramways or any of the light and fast

vehicles for the conveyance of passengers and goods used in modern times, a city one-tenth of its size could not have provisioned its inhabitants or interchanged commodities for home and foreign trade by any other means than water carriage in great bulk. The Romans developed roads and well-paved streets for city traffic, and horsed vehicles of considerable tonnage were in constant service through their cities, leaving the ruts worn by their wheels in the hard tramway stones of Pompeii and Herculaneum. Water carriage was the chief means of distribution in the great cities of Egypt, and the Romans were probably the earliest builders of large cities dependent upon land carriage for distribution and communications.

Mediæval cities grew so slowly in the course of centuries that their builders were safe to erect walls enclosing them within restricted limits for defence against external enemies. All cities were walled in ancient times, and usually a city was built full-grown by some ruler of sufficient power and wealth to command the necessary capital. Growing cities, like countries of rapidly increasing population capacity, are strictly modern phenomena. They owe their existence to the advances in modern science, communications, industries and government which have caused populations to increase. The walled city was a pretty effective preventive of population increase. The gates through which all produce and passengers had to pass gave an admirable opportunity for levying customs upon all goods and produce passing into or out of the city. The burgomaster was the equal of any feudal baron, with a more valuable property than mere land and peasants in the skilled producers of valuable wares dwelling within the city. In many cases the burgomaster was actually the neighbouring feudal baron or even the Archbishop of the Papal see, a pretty mediæval custom revived in some modern English burghs with great *éclat*. The clergy also founded monasteries and convents within the city walls, and rival orders of friars eagerly extended their privileged precincts at the expense of the narrowing quarters of the citizens. With civic nobility and

monastic orders the citizens led a precarious life between the devil and the deep sea.

Froude points out that the chief cause of the non-increase of the population of England from the time of William the Conqueror to Henry the Eighth's reign was the existence of walled cities containing monastic clergy and under baronial rule. The insanitary conditions of city life from restriction of space and neglect of the most essential civic public works were distinctly awful. Plague and pestilence were recurrent or endemic. Production was penalised by heavy export duties, while the price of provisions was enhanced by customs on imports. The encroachments upon the limited areas of the cities by black friars, grey friars and white friars, all useless non-producers, continually gaining in power and area at the expense of the productive citizen, kept the health and productive powers of the useful inhabitants at the lowest ebb.

That bold, bad man Harry changed all that. The changes were inaugurated by his father Henry Tudor, who took the important step of marrying his elder daughter Margaret to James IV. of Scotland and thus laid the foundation for union, while he began the demolition of the political power of the feudal barons. But Henry, his son, crowned the edifice of the liberty of British burghs by abolishing the monastic orders, forfeiting their property, and establishing municipal power in the hands of the citizens' own representatives or nominees. He also laid the foundations of English sea power by building the "Great Harry," the largest defensive vessel built since the days of Noah. Maritime commerce, which required the protection of sea power from its earliest days, was more essential to the growth of cities than the demolition of walls and monastic establishments. The increase of the population capacity of the English cities dated as clearly from the launch of the "Great Harry" as from the Reformation.

The growth of London within the Metropolitan area, or "Greater London," during last century is illustrated in the following tabular statement giving the population of each of the three areas, the greater including the less, at each decennial census :—

Year.	Population Inner London.	Density per Square Mile.	Increase Rate per cent. per Ann.	Population Greater London.	Density per Square Mile.	Increase Rate per cent. per Ann.	Population City.	Density per Square Mile.	Vari- ation per cent. per Ann.
1801 ..	Area, 120 Sq. Miles. 958,863	7,991	1.58	Area, 693 Sq. Miles. —	—	—	Area, 1 $\frac{1}{2}$ Sq. Mile. 156,859	149,394	—2.60
1811 ..	1,138,815	9,490	1.10	—	—	—	120,909	115,151	+0.37
1821 ..	1,378,947	11,491	1.67	—	—	—	125,434	119,461	+0.01
1831 ..	1,654,994	13,792	1.70	—	—	—	125,574	119,514	—0.04
1841 ..	1,948,417	16,237	1.88	—	—	—	125,008	119,055	—0.21
1851 ..	2,362,236	19,685	1.71	—	—	—	122,440	116,610	—0.90
1861 ..	2,803,989	23,366	1.49	3,222,720	4,650	1.86	112,063	106,727	—4.00
1871 ..	3,254,260	27,119	1.59	3,885,641	5,607	2.06	74,897	71,330	—3.93
1881 ..	3,816,483	31,804	1.11	4,776,661	6,893	1.65	50,526	48,120	—2.91
1891 ..	4,266,019	35,550	0.67	5,633,806	8,128	1.55	37,702	35,907	—3.37
1901 ..	4,563,464	38,029		6,581,372	9,500		26,923	25,641	

The city population includes the residents or night population only; the day population or those resident, occupied or engaged in the city during the day, having increased considerably during the last half of the century; in 1806 it was 170,133, in 1881 it was 261,061, and at a similar rate of increase in 1901 it would be over 400,000. As facilities for locomotion were provided by public works, the city became depleted of resident population, and Inner London, that is, within the limits of the County of London, filled up at a high and increasing annual rate during the first half of the century. The expansion of the city people outwards to Inner London evidently sustained a check during the second decade while trade was suffering from the effects of war with France. But the process of depletion was resumed in the third decade at a rate increasingly accelerated towards the second half of the century by suburban railways and season tickets. With the opening up of the districts of Greater London in 1861, and the rise of the limited company system of business, the residential area of the city has been practically effaced by offices and warehouses. During the last ten years of the century, Inner London has fallen off in its rate of increase very considerably, the increment in the ten years being little over a quarter of a million people, while Greater London added nearly a million. The estimated population of Greater London in the beginning of the year 1909 is about seven and a half millions of people.

The chief factor in the increase of the population capacity of London is maritime trade. London is a great railway centre, and thus becomes the principal shipping port for goods exported to foreign countries and the colonies. But although also a distributing centre for home trade, it is chiefly as the *entrepôt* for foreign goods and produce that London requires to be the distributing depôt for the country. Its gigantic import trade and the fine climate of Greater London, with the attractions inseparable from the metropolis of a great country, make London the most favoured residential city in the Empire. Probably the bulk of

the residents in the outer belt of Greater London have no calling or occupation in the city, and considering that one-third of the adult population of England and Wales in 1901 were non-productive and of no occupation, at least a similar proportion of London residents must be people of independent means.

The population capacity depends, however, upon the productive capacity and access to markets. A comparative lull in the undertaking of public works has been evident in unemployment, which prevailed more or less throughout the world. London was singularly unfortunate in the culmination of the slump in trade and cessation of public works at the close of a flitting of many of its great producing factories to more favourable and less onerously rated or taxed municipalities.

While the growth of pauperism during the last century has not kept pace with the growth of population, it still remains the heaviest rating burden upon cities. To it has been added the burden of providing for free education, rating for non-remunerative but necessary public works such as sewerage, and various necessities or luxuries of modern civilisation. These burdens have told adversely on the productive capacity of London more severely than on any other municipality, although all cities suffer more or less from this mal-administration. The origin of municipal rating was incidental to the original poor law of Queen Elizabeth's reign, although the rating was not confined by that law to householders and factories. The latter abuse has crept in more recently through the private Acts passed by Parliament in favour of rating bodies. The rates assessed upon machinery in London factories represented in recent years a fixed annual first charge upon earnings of £1,000 to £4,000. The result of this tax upon industry was the removal or extinction of most of the London machine factories at the end of the century.

It is difficult for the unofficial mind to grasp the connection between the furniture of a household or the machinery of a factory, and the hunger of a pauper or the thirst of a child for erudition. Any person having enough to eat is always willing to share a crust with a

hungry pauper, and education is an equally vital interest for everybody in the country. The incidence of taxation for these purposes should be universal, and certainly should not be levied wholly upon the only two kinds of property which it would be most expedient in the national interest to exempt. There cannot be a doubt that the exorbitant municipal taxes upon household furniture are the cause of the falling off in the marriage and birth rates of the country, and all the firms who have removed their machinery and factories from London declared the sole cause to be the excessive demands made upon them for municipal rates. These imposts should be wholly imperial, levied exclusively upon foreign imports, which would distribute their incidence with uniformity, and increase both the productive and the population capacities of the cities and country. With a judicious measure of tariff reform this beneficent change in the incidence of taxation will reduce the bloated rate bill of London to the moiety of its present injurious exactions, required for the necessary purposes of municipal public works which in themselves increase the population capacity.

Many cities which owe their origin to proximity to the source of their raw material or to local circumstances which rendered them suitable for some special form of industry or trade, have risen to importance after these sources or circumstances have completely changed, suitable substitutes having been found to support and extend the receipts from their capital investments in machinery and public works for production and marketing. Bradford established its great cloth industry in the centre of supply of English wool, but has expanded its industry upon the produce of Australian squatting, Manchester is said to possess a humid atmosphere peculiarly suited for the working of cotton, and here the initial stages of multiple machines for spinning and weaving were successfully achieved, making the city the permanent centre of the greatest textile industry in the world, although the raw material has always been produced in foreign countries. The capital invested in machinery and public works for marketing products,

and the organisation of skilled labour and trading agencies, have fixed the seat of manufacture in Cottonopolis as firmly as any human institution in a world of change. The deepening of the River Clyde to maintain access to Glasgow for ships in the Virginia trade made the subsequent rise of the iron and shipbuilding and engineering industries practicable to a value infinitely greater than the original trade of Glasgow. The population capacity of the city and towns on the banks of the Clyde was created by the important public work of dredging and harbour works. Every important city in the United Kingdom and throughout the world is either a railway centre or a deep-water port. With the increase of tonnage and draught of ocean steamers, harbours must be deepened, and quays and warehouses built upon a corresponding scale of magnitude. The Manchester Ship Canal brought ocean steamers direct to the warehouses for cotton goods, saving the most costly part of the freight by cutting down the railway rate of 2d. per ton mile over 35 miles to the ocean rate of one-twentieth of a penny per ton mile. Although this great undertaking cannot yield a direct return upon the capital invested upon the public work, yet the economy effected on freights takes immediate effect upon the business and population capacity of the country.

If a British statesman were seriously to suggest the imposition of an export duty upon manufactured cottons, or even an import duty upon the raw material, a commission would immediately sit upon the question of his sanity. To block the access of the produce of a populous district like Lancashire by export duties is unthinkable as a policy; to let the way to markets remain blocked by the barrier of high railway rates or slow canal traffic by barges of mean traffic capacity is equally injurious to the growth of the district. The next movement in public works for the development of the Lancashire towns is, therefore, the undertaking of hydraulic slipways for the swift conveyance of barges and sea-going vessels from the towns to the Manchester Ship Canal or the nearest harbour. For many years the railways of Lancashire have been blocked by goods

traffic in excess of their traffic capacity. Delay means extra charges for demurrage, the passenger traffic suffers by detention and insufficient trains, and the inefficiency of the system causes loss to the railway companies and the country. The extra accommodation given to goods traffic by the slipways will enable the railway companies to develop the more paying side of passenger traffic.

The census of 1901 showed the aggregate density of population in the County of Lancaster to be 2,182 people to the square mile, or one-eighteenth of the density of population in Inner London, to which the population of Lancaster was nearly equal in numbers. The cessation of the extension of public works for communication with markets in the county of Lancaster will prove a serious check to the increase of population capacity, if the unwise legislation of recent years should be continued. It is not so much the positive legislation by passing Acts which diminish the confidence of investors in local undertakings that affects the progress of public works in England, as the ignorance and supineness of a Ministry lacking a knowledge of the first principles of political economy, especially the main principle of giving access to markets. Britain is the only civilised country in which the administrative staff of the Government does not include a Ministry of Public Works. Even in British colonies the Minister of Public Works holds a Cabinet appointment of the first rank and importance. The President of the Board of Trade has his time and attention engrossed by trade and commercial departments totally apart from the conduct of public works, which are left to the inception and guidance of the company promoter controlled directly by Parliament. An industrial county like Lancashire, of extensive area, requiring the most strenuous development of communications for its continued prosperity, suffers far more from this haphazard organisation of government than either a large city or a purely rural district. The parliamentary expenses of the Manchester Ship Canal Company amounted to £250,000, where under a properly organised government with a Board or Ministry of

Public Works to guide the undertaking, the expense of the Act should not have exceeded £2,500, or one per cent. of the actual cost.

The rise of the great cities of America and the Colonies has taken place concurrently with settlement in those countries, and the increase of population capacity in the cities generally proceeds at a higher rate than that of the rural districts. The process is purely automatic, arising from the gregarious instinct in man, and the essential requirements of civilisation. Wherever a great centre of production occurs, with the necessary facilities for marketing capable of development by railways and harbours, there the great city grows like a vegetable. A moderate amount of foresight on the part of the founders of the city will prevent infinite waste and squalor in its development, and sometimes the greatest blessing in the history of a hastily founded city is its total destruction by fire, allowing the entire replanning and erection on lines more suitable for its unforeseen extent and functions. The chief misfortune of cities in the New World lies in their adoption of the system of restricted local government and rating which grew up automatically in the course of development of European cities. Their public works are left to the exploitation of the company promoter. Where these are necessarily indirectly remunerative, as water-supply and sewerage, the areas are confined to existing boundaries of a temporary nature, and the incidence of taxation for their support narrowed to a small and overburdened section of the community. The unearned increment of value in the site is engrossed by the first and generally rural proprietors instead of going to the general good for the formation of public works. It is only in despite of these constantly recurring mistakes in government that modern cities grow and flourish. The rate of increase of population throughout the whole country is hampered and restricted by the mal-administration of cities.*

* See Smith's "Wealth of Nations," Book III., chaps. iii. and iv.

CHAPTER XII.

THE INFLUENCE OF STATESMANSHIP.

Access to Markets—*Laissez Faire* Theory—Its Illogicalness—Freedom of Burghs—Early British Customs—Bounties—"Balance of Trade"—Direct Taxation—Public Works Legislation—Road Administration—National Roads—Encouragement of Industries—Government Inspection of Produce—Federation and Customs Union—Brazilian Export Duties.

THE dictum that "fools step in where angels fear to tread" is more honoured in politics than in any other walk of life. Ignorance of danger places foolhardiness in the room of courage. The faintest realisation of the awful truth that upon the knowledge and thought, upon the legislation and administration of the statesman depend the living or the non-existence of millions of future generations of his fellow countrymen, might give pause to the most eager aspirant to political power.

Population, as well as the wealth of nations, is founded upon the profits of labour; and unless the products of labour find sufficient facilities of access to markets these profits are not realised and there can be no increase of population. The population capacity of a country, then, depends upon its access to markets; without communications and facilities for trade there would be, practically, no production. Facilities of marketing include both public works of communication and the wise adjustment of the rates and incidence of taxation; and the undertaking of public works, and imposition of taxation are the chief functions of statesmen.

The theory of *laissez faire* enunciated by Herbert Spencer in "Social Statics," "Over-legislation," and other works, is evidently founded upon a curious restriction of his theory of development by differentiation of

function from the homogeneous to the heterogeneous. The entire human organisation, physical, social, intellectual, and religious or moral, is developed on this principle, with the remarkable exception of government by the State. The only reason he assigns for this exception is : "Why should we hope for so much from State-agency in new fields, when in the old fields it has bungled so miserably ? Why, if the organisations for national defence and administration of justice work so ill that loud complaints are daily made, should we be so anxious for other organisations of kindred type ? And, conversely, why, considering that private enterprise has subdued the land, built the towns, made our means of communication, and developed our civilised appliances at large, should we be reluctant to trust private enterprise in further matters ?" Again : "Beyond the function of national defence the essential function to be discharged by a government is that of seeing that citizens in seeking satisfactions for their own desires, individually or in groups, shall not injure one another, and its failure to perform this function is great in proportion as its other functions are numerous."

The cause of the Government monopoly of the functions of national defence and the administration of justice is that it is impossible for any form of private enterprise to fulfil them. There is, therefore, no standard of comparison to judge the goodness or badness of the performance of the Government as compared with any other functionary. To cite as a reason for not extending the functions of government to the undertaking of public works an alleged badness of performance of justice is illogical, because the allegation of badness cannot be substantiated, and without premises there can be no deduction. The only just standard of comparison lies in the results of the performance of the same function by the government as against private enterprise. The experience of every nation in the world for nearly a century has shown that public works are constructed and administered by government departments more economically and with greater satisfaction to the public than where they are left to promotion and

undertaking by what is called private enterprise. But the so-called private enterprise has to be endowed with delegated government functions and organised by special Acts of Parliament or government concession in order to construct and administer a public work, so that even private enterprise fulfils the function as a deputy or branch of government, the only difference consisting in private enterprise working for a profit.

Spencer's plea that the government's "failure to perform this function (justice) is great in proportion as its other functions are numerous" is inconsistent with his own principles. The more heterogeneous an organism becomes it ascends higher in the organic scale, and its several functions attain a higher development. Therefore, the more heterogeneous the functions of government become the more nearly perfect will the performance of each function become. It is only by eliminating the organisation of government from the field of organic life that the Spencerian dogma of "over-legislation" can be presented to a credulous public.

In the earlier ages of Europe the possession of political power was sought solely as the means of personal gain and aggrandisement. It was the principal source of great individual wealth, and the power of imposing taxes was claimed and exercised by every feudal baron as well as by the king or government of the country. As a refuge from the more immediate tyranny of a local lord, the burghers of walled towns and cities compounded with the king for freedom from taxation of their goods in the forms of "passage, pontage, lastage, and stallage," to which they had been subjected "when they passed through certain manors; when they went over certain bridges; when they carried about their goods from place to place in a fair, and when they erected in it a booth or stall to sell them in."* These exemptions gave the burghers the name of free traders, and the royal burghs upon whom their charters conferred right of market and exemption from customs were "free burghs." The freedom extended to more intimate personal matters than trade, it virtually redeemed them

* Smith's "Wealth of Nations," Book III., chap. iii.

from personal slavery to their lords, as it gave them the rights to "give away their own daughters in marriage, to dispose of their own effects by will" (they formerly passed to the superior), and they were erected into a commonalty or corporation, with the privilege of having magistrates and a town council of their own, making bye-laws, building walls for defence, and organising and disciplining their own militia. The free cities progressed much more rapidly in civilisation, wealth, and population than the rural districts, where villenage or slavery lingered many centuries. Some of the free cities in Italy, Switzerland, Germany, and Batavia became powerful States, owing allegiance to no monarch or baron, and reducing the neighbouring feudal nobility to the rank and rights of citizens. Statesmanship reached its highest development in the free cities of mediæval Europe.

In Britain, from its insular position, taxation by customs (or customary) duties was levied mainly upon the nation's commerce as a whole at the seaports, instead of upon individual cities as upon the Continent. "The ancient duties of customs were supposed to be imposed equally upon all sorts of goods, necessities as well as luxuries, goods exported as well as goods imported. Why should the dealers in one sort of goods, it seems to have been thought, be more favoured than those in another? Or why should the merchant exporter be more favoured than the merchant importer?" The early statesmen of England saw no further in the incidence of customs than the immediate payer to the Treasury. The first "imposition," as it was called, was an export duty upon wool and leather. When woollen manufacture was begun in England, to prevent the loss of customs upon wool, a like duty was imposed upon the export of woollen cloths. Other branches of the first imposition were a duty upon wine per ton called "tonnage," and a duty upon all other goods at so much per pound of their supposed value called "poundage."

In the 47th year of the reign of Edward III. a duty of sixpence in the pound value was levied on all exports

and imports; in the 14th of Richard II. this duty was raised to a shilling, lowered to sixpence for a few years, then raised to eightpence by Henry IV., and afterwards to one shilling in the same reign. This duty was continued without interruption as the basis of English taxation down to the end of the eighteenth century, during the course of which century four additional *ad valorem* duties were levied on imports only, with many special duties on specific articles, with a view to protection on the “Mercantile System.” Under the mercantile system, however, the first subsidy with its ruinous export duties was not only abolished, but exports encouraged by a system of bounties on the export of specified articles, and drawbacks on re-exports, which cut down the net revenue from customs to less than half the gross income of $5\frac{1}{2}$ millions sterling per annum, seriously crippling the national finances with no corresponding benefit to the people. The grand climax of the absurdity of the mercantile system was attained in the corn export bounties, together with protective duties on corn, in order to enrich the Tory landowners at the expense of the whole people, who paid three times the cost of production for their daily bread.

Edward and Richard’s legislators were simple men, unencumbered with learned economic theories; who were, fortunately for English industries, fully countenanced by continental legislation in their day; and England itself being an agricultural country with no industries possible to suffer by their quaint ideas of impartiality, the non-progressive character of the country was due to causes more internal in their nature than foreign trade. The “balance of trade” theories of their successors of the mercantile school were more mischievous in results, especially towards the end of the eighteenth century after the publication of Adam Smith’s famous text book of political economy, “The Wealth of Nations,” which they seemed to contradict in every legislative Act.

The legislation of the nineteenth century, from the famous Reform Act of 1832, which led immediately to important fiscal and financial reforms and ultimately to the

repeal of the Corn Laws in 1846, has set steadily in the direction of direct taxation. This is the natural outcome of democratic power, and is therefore only another instance of class legislation. Direct taxation of householders and manufacturing producers by municipal rates, direct taxation of small earned incomes (under £1,000 per annum), and many of the commercial and personal stamp duties, including the exorbitant limited company registration duties, which bear hardly upon productive individuals or companies, should be abolished. Direct taxation on any but wealthy people bears very unequally upon individuals. The tax upon beer is paid by the consumer through the producer, but in very small sums, not more than 1½d. on a quatern pot. The daily pot of ale, if taxed directly by annual licence to drink it, would cost the working man £2 5s. 7½d. in a lump sum, enough to produce a sanguinary revolution. As an indirect excise duty the same amount paid by 1½d. on each pot is rather liked by the consumer as a guarantee of quality or a Government stamp. It seems to legalise his indulgence in the little luxury. The Labour and Socialist support of exorbitant direct taxation on the class only a small remove above their own is of the nature of a savage retaliation for their little social advantage, and has not a shadow of justification in economic principle. One can understand the natural leaning of the Labour party to take from the struggling respectable by direct taxation of small earned incomes and industries, but it is impossible to palliate the time-serving politician who sells his soul for a few votes by pandering to class legislation of this kind. From the point of view of the interests of the nation, nothing in the incidence of taxation is more subversive of progress and increase of population capacity than penalising households and industries by direct taxation.

The neglect of public works of communication and transit by the British Government has already loaded the country with a burden of permanent obligations to pay interest on promotion and parliamentary expenses and wasteful competitive expenditure upon railways alone amounting to at least £500,000,000.

In addition to this burden, the country is notoriously under-railwayed. Britain taking an inferior rank to many other countries in industrial competition with it, in the relation of the number of inhabitants served by a mile of railway. The limit of remunerative extension is evidently within sight, and the introduction of electric tramways and motor traction on roads has now to be allowed for. Road construction and maintenance is clearly a national duty. In "A Short View of the Doctrine of Smith," translated from the French of M. Garnier, it is said: "To accomplish the increase of labour, what are the exertions to be made by its government? The sub-division (organisation) of labour, and the invention and perfecting of machines." These two great means of augmenting the energy of labour advance in proportion to the extent of the market, or, in other words, in proportion to the number of exchanges which can be made, and to the ease and readiness with which these can take place. Let the Government, then, direct all its attention to the enlargement of the market, by forming safe and convenient roads, by the circulation of coin and capital, and enforcing the fulfilment of contracts. The first of these three means (roads) is, without doubt, the most essential, as no other expedient whatever can possibly supply its place."

The roads in Great Britain have always been left to the care of local authorities. Each county and parish authority has made and maintained the roads within its boundaries according to its own sweet will. The roads generally meander about as directed by local and individual property rights and interests, with little reference to the common good or the requirements of through traffic. Alignment and levels are conspicuous by their absence, sharp angles take the place of easy and safe curves, and square crossings have each limb carefully hidden from the vehicles on the others by the erection of high buildings on the corner lots. Switzerland is a much more mountainous country than England, and yet the roads through Switzerland are infinitely better adapted for motoring than those in this country.

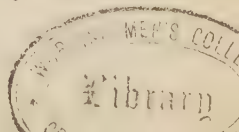
On the highly desirable re-settlement of the land indicated in a former chapter, the first duty of the national government will be the formation of a complete system of motor roads. Agricultural produce cannot be marketed, to pay, by any other means. The grain will not be grown, the stock will not be reared, the eggs, butter, and bacon will not be produced, no fruit will be gathered, until the means for placing them on the market are in evidence. The lame local administrations of counties and parishes cannot grapple with this momentous national problem. Imperial funds and imperial control are the only forces available for this great work, which will entail an expenditure within a limited number of years of something like £100,000,000. The advent of petrol motors has raised the question of national roads in an acute form, and being coincident with that of the closer settlement of land, the development of rural industries may now receive that share of national attention of which it has been wholly deprived since the fall of the Roman Empire.

The financial side of the encouragement of rural industries to be adequately dealt with requires the strong hand of the national government. The capital required for the provision of roads can only be made available on the security of national taxation. The direct benefit will accrue from the additional value of produce marketed, and there is no economic reason why this extra value should not bear the immediate burden of the expense. Taxes on food and the necessities of life, where imposed for protection or monopoly purposes to an extent burdensome to the consumer, are deservedly unpopular. But where imposed for revenue purposes to meet the charges upon the capital employed in the development of industry, they are generally small, and do not affect prices to an appreciable degree. The herring brand is an instance of the assistance which may be afforded by the Government to a struggling industry of great national benefit in the rearing of hardy seamen for the navy. The brand stamps the quality of the herrings with a Government guarantee in foreign markets, causing a distinct increment in value, which more than

compensates the fishermen and dealers for the amount they pay in branding dues to the Government. The receipts from these dues are expended by the Scottish Fishery Board upon the improvement of harbours for the accommodation of fishing boats, and branding and dues are cheerfully maintained by the desire of the fishing interests.

A Government brand upon cases of home-made butter, coming up to an excellent quality, would do much to redeem the character of the British dairies. The finest quality of butter on the London market now comes exclusively from certain factories in Brittany, and agriculture is in such a depressed state in England that without extraneous aid from the Government there is little hope for the recovery of the lost place of butter from English dairies at the top of the home market. To counterbalance the small excise required for branding, a corresponding customs duty would require to be placed on foreign imports, when the colonial question could be dealt with by preference as a side issue. These taxes would not affect the cheaper qualities of butter or margarine, and would only be perceptible to the consumer in providing a guaranteed superior quality at a corresponding price. Statesmen hampered by dogmas as to so-called "Free Trade" probably would not pause to consider the propriety of the Government fostering home industries by the provision of access to markets with charges to meet the necessary expense, but that class of statesmen is as prejudicial to the interests and the increase of the population capacity of their country on the one side, as the protectionist statesman who dogmatizes on the balance of trade is on the other.

A wide variety of additional produce would be opened up to markets by additional means of communication. The co-operative factories for curing bacon and ham, making cheese, and fruit preserving industries, which would undoubtedly be created by closer settlement and roads, would be assisted likewise in the promotion of high quality of goods by government inspection and guarantees. The "newly laid" might be distinguished by an excise stamp and the "newly landed"



discriminated by a customs chalk mark on the case. The revenue for the provision of roads for marketing home produce would benefit by the trifling duty on foreign competitive wares. The consumer would be better supplied with superior qualities, and the producer stimulated by better prices and increased demand. Such taxes, so proportioned as not to discourage consumption of the goods they affect, are calculated "to operate as a universal stimulus upon the active and industrious part of the community. They seem to afford an explanation of that most extraordinary phenomenon in political economy, namely, the rapid and prodigious increase of wealth in those nations which are most loaded with indirect taxes."*

The "Little Englander" is a statesman who seeks to palliate the evil burden of world-wide Empire by the alienation of the Colonies under responsible local government to the status of entirely foreign countries, in every particular except the flag he himself affects to despise, but which the erratic colonial still clings to with affection and loyalty. He declares, as Lord Northcote asserted at the dinner given by the Colonial Institute on his retirement from the Governor-Generalship of the Commonwealth, that customs union within the Empire will never be possible. It may not come, like preference, from a voluntary offer by the Colonies, and it cannot arrive except in the train of federation of the Empire. But a federal government, on which the self-governing Colonies are adequately represented, will be weak indeed if its earliest act is not one of full customs union within the Empire. If, for instance, Canada objected and wished to refuse to join, what alternative would the Canadian Dominion find to that of incorporation with the Empire? The United States of America will not admit an additional State to their federation without full customs union, and, in addition, Canada would be subjected to an invasion of carpet-baggers like the Southern States after the civil war. The Commonwealth of Australia would certainly not choose to call in German assistance across the Torres Strait

* Smith's "Wealth of Nations."

to rescue them from the supposed tyranny of the federal British Government, for incorporation in the Zollverein would follow from the moment a German officer landed in Northern Australia. Customs union must follow upon federation, and the Empire cannot hang together many years longer without Colonial representation in the Imperial Councils.

Customs union throughout the Empire will provide an immense extension of facilities for access to markets for British produce. The whole Empire will gain in the increased population capacity created by the enlargement of markets. The consumer of British manufactures in the Colonies will pay little more than home prices for necessities as well as luxuries of civilisation. His purchasing power will be vastly increased, and the demand following upon that increase will provide the greatest stimulus to British home industries and population capacity the country has ever received from any single Act. Shipping facilities will increase, and fares and freights will be lowered, with increased emigration, to the benefit and growth of the Colonies. British statesmen worthy of their name and power have a great and beneficent work before them in the federation of the Empire and customs union, towards which colonial preference is the first step.

Britain is not the only country which suffers diminution of population capacity from lack of true statesmanship. Probably the extreme case is that of the United States of Brazil, where the federal government derives its chief proportion of revenue from the receipts from export duties on merchandise. Export duties are a survival of the fiscal policy of the darkest ages of mediæval Europe. The most improved facilities for transport are unavailing if access to the world's markets is blocked by an imposition which puts a profitable price beyond the limits prescribed by the competition of rival countries. Only such a system could keep a marvellously fertile country like Brazil from the command of the world's supply of coffee and other tropical produce. In the case of coffee, not even export duties could sufficiently check production, and a government

monopoly of purchase from the planters was found necessary to prevent the lowering of the price required to pay the export duty. Production would increase rapidly, even in the face of lowered prices, if the government monopoly and export duties were removed ; and the country would at once increase in population capacity, and the government would be compensated amply for the loss of export duties by the increase of imports. A fall of the price of coffee in Europe and America would be a great boon to the mass of the people, providing a temperance beverage and stimulating food which would largely displace alcoholic liquors with the poorer classes.

CHAPTER XIII.

PUBLIC WORKS.

Effect of Public Works—Tropical Hygiene—Sanitation Works—Death-rates—Unemployment—Variations of Density Due to Works—The Scottish Highlands—Public Works in Lancashire—Traffic Capacity—Canals and Slipways—Federal Administration of Works—Home and Foreign Investments.

WHEN the population capacity of a country progresses as it should in the presence of civilisation, the increased capacity is filled by the predominance of births over deaths or of immigration over emigration. A distinction may be noticed in the nature of public works, between those works which are calculated to increase population by diminishing the death-rate, and works tending to the direct prosperity of the people and thereby to increase the rates of marriages and births. In countries where an enlightened policy extends public works and facilitates access to markets and land settlement, or access to industries, so as to increase the population capacity at a greater rate than marriage institutions and the standard of living admit of, the excess of the birth-rate over the death-rate filling up the demand for population and well-paid labour, the attraction for immigrants from countries less favoured in their rulers is irresistible.

The pioneer settlers of new countries have invariably led lives of incredible hardship. The Pilgrim Fathers were frequently provisioned from England in the earliest days of settlement, and suffered from many of the worst evils usually entailed by over population. All of them settled in towns from which the wilderness was never more than a few hours' walk. Cultivation extended only to the limits set by the formation of roads; the public works, organisation of labour, and government, being

conditions absolutely essential to life. In several of the Australian Colonies settlement was considerably facilitated by convict labour on roads and other public works; and no complaint arose as to the deteriorating influence of undesirables until time-expired men began to multiply and turn their attention to other pursuits.

In hygienic public works the most important departure with a view to ultimate results has been that inaugurated by Sir Patrick Mason towards the close of the last century in the investigation of the life history, propagation and transfer of the parasites of disease found in the human blood. Most of these flourish luxuriantly in tropical climates, although by no means confined to any region by climate. The practical application of the important discoveries of the process of infection by mosquitoes, flies, ticks, and other insects lies in public works for the prevention of the breeding of insects, such as drainage of lands and pools of stagnant water, cleansing cities and country of all manurial matter, and suitable housing accommodation for the protection of human beings, fowls, and all domestic animals subject to the attacks of disease-carrying insects at night.

Where such hygienic works have been carried out, as on the Roman Campania, the Isthmus of Panama, and Havana, the most deadly forms of disease—yellow fever, malaria, elephantiasis, sleeping sickness, and others—have been abated to an extent that has made the most unhealthy districts in tropical regions as healthy as the normal standard of temperate regions. With the greater productive capacity of the soil in tropical climates, it follows that in normal health conditions the population capacity of a tropical country will exceed that of an equal temperate area dependent upon agricultural industries, by their relative productive capacity. Thus in place of a density of 5 to 25 on the square mile in malarious countries, the density should increase on the destruction of mosquitoes to at least forty times the former numbers of persons on the square mile. No impression, however, can be made upon insect plagues by any other means than public works of national

magnitude undertaken by the power and wealth of a strong government organisation.

Sanitary works were unknown to the cities of Europe until comparatively modern times. Where a sewerage system occurred, as in Paris, it consisted of huge cut-and-cover tunnels which were liable to become a greater evil than exposed water-courses or open drains. An organised municipal service of carts carried away part of the night-soil and ashes from houses of the better sort daily, as is still done in London with part of the refuse, but for the most part in cities and in all towns and villages, the filth was stored either on the streets or in ash-pits or middens, one wall of which was usually a house wall. The storage was only supposed to accommodate solid refuse. The liquid sewage was universally thrown on to the street or the land nearest the house. A dexterous swish round in the vessel for rinsing purposes, and the sudden arrestment of the latter sent the fluid in a broad sheet of spray over the ground or the paving stones, to be absorbed or evaporated. A thousand years or so of this top-dressing with sewage made the streets and soil of the cities a fertile field for the growth of zymotic diseases; and in cases where plague, Asiatic cholera, or any other epidemic was imported, the population capacity of the town speedily decreased.

Most cities and towns were founded on the banks of a stream for the purpose, among others, of water-supply. As the city extended away from the banks, wells were sunk to supplement the supply and save carriage. Very often a cesspool was built contiguous to the well, and the most limpid water was sometimes procured from the well in the cathedral close or the churchyard. The population capacity of all European countries under this system of hygiene was naturally limited by endemic and occasional epidemic diseases. It kept the death-rate for many centuries pretty nearly equal to the birth-rate, from 30 to 35 per thousand per annum. The youngest children are the most liable to fatal illness from non-hygienic surroundings. Thus the extraordinary rate of mortality was liable to escape public notice, except on the occasion of an epidemic of plague.

In these circumstances it must be difficult for the most hardened sceptic to doubt the efficacy of modern hygienic public works, as sewerage and water-supply of cities, in the increase of the population capacity of a country.

Frequent reference has been made in previous chapters to the efficacy of public works for transit of goods and passengers and establishing communications, in the increase of population capacity. Roads, railways, canals, harbours, shipping, posts, telegraphs, telephones, and their numerous adjuncts, in facilitating trade and giving easy access to markets, have fostered the rise of the factory system for cheap production in immense quantities, and created an increasing demand for productive labour. The utilisation of coal for power purposes with the progress of mechanical invention has increased the efficiency of labour by hundreds of times its unassisted power ; and what is now required of the labourer, whether skilled or unskilled, is more intelligence than muscle. Education and organisation on the part of the workers, with intelligence in their employers and rulers, would make it impossible for what is called over-production ever to occur. Unemployment is due solely to widespread want of confidence for the application of capital to the extension of public works and great industries. Not only is there a wide world presenting an unlimited field for public works to give it population capacity, but the whole of the older settled countries of Europe are extremely sparsely inhabited.

The settlement of all countries is as a rule extremely unevenly distributed, the density on certain limited areas greatly exceeding the aggregate density of population of the whole country, and still more so that of the mountainous or arid parts where mineral wealth is undeveloped. In great cities the density rises as high as 50,000 to 100,000 persons on the square mile ; in counties like Lancaster, the special seat of great manufactures, it exceeds 2,000 on the square mile on the average ; while the agricultural county of Dorset carries only 200 on the square mile. There are still more sparsely populated counties in England and Wales, where sheep farming is the only industry ; but where

game and wild sports control the population capacity of counties, we find in Scotland that Sutherland has a density of ten persons on the square mile, and Inverness-shire 18. Public works are not consistent with the preservation of game, and even sheep do not thrive and multiply in their presence. Of the 9,000,000 acres of land recommended by the Royal Commission of 1908 for afforestation, nearly half are contained in these two counties.

The great public work of afforestation would restore the lands of the Highlands of Scotland to habitable condition. Up to the beginning of the eighteenth century the Highlands were peopled to the normal density of the times, 50 to 100 on the square mile. The sudden conversion of feudal to allodial or commercial tenure of the rights of the supreme chiefs of the clans for the time being, by the Court of Session sitting in Edinburgh, which was practically a foreign country—the stronghold of the hated Sassenach; led to the devastation of the country by cutting down the natural forest trees and expelling the native Highland cultivators in favour of sheep, to be followed by foreign red deer and feathered game. That these changes paid the two or three large landed proprietors created by the piratical court was no justification of the acts of the Government, any more than the absence of votes from the moorland areas justifies narrow-minded statesmen in the neglect of public works for the restoration of forests and cultivation.

Afforestation will prove only the beginning of public works in the waste areas of the three kingdoms. The amelioration of the climate of the Highland districts of Scotland especially will not only render agriculture thoroughly practicable in a land naturally tempered to geniality by the Gulf Stream surrounding the coasts, but this beautiful sylvan country will become the most favoured residential area in Britain. The demand for products of all kinds arising from an increasing population of great wealth and high civilisation, will stimulate the growth of manufactures and the extension of public works giving access to markets. With numerous

land-locked natural harbours on the west coast, now only used as ports of call for tourist traffic, foreign shipping trade will naturally be developed, and these now desert wastes will be peopled with a dense and thriving manufacturing population. Statesmanship and public works are the factors required to effect this consummation, but the former must be grounded on the first principles of political economy, not on class interests and vote-tempting catchwords. Of what value is "The big loaf" to a non-existent Highlander?

The problem of the increase of population capacity in agricultural counties has been discussed in previous chapters, and the case of Lancashire may be further referred to as typical of the more advanced stage of a manufacturing county with a density of population far exceeding agricultural limits. A *laissez faire* policy of the central Government, known for a century as the Manchester school of philosophy, so thoroughly had these principles been localised, left the genius for local self-government and industrial effort at liberty to invest capital and labour in public works and their concomitant industries, to an extent that has developed the county far towards the direction of becoming a continuous and densely populated city. The traffic capacity of its lines of communication is fully occupied with goods in transit to home and foreign markets, and further development can only be achieved by increasing the traffic capacity of existing and additional lines.

The traffic capacity of any line of communication may be calculated in terms of the unit of bulk or weight carried multiplied by the speed of transit, such as ton-miles per day. The traffic capacity of one of the footpaths leading through the necropolis surrounding a Chinese city would figure out at the most as 56 lbs. carried on a man's head or shoulders, multiplied by the number of carrier coolies, and the thirty miles each can walk in a day. A single train freight of 400 tons would require a procession of 16,000 coolies to convey the goods a distance of 30 miles, and as the train load could be conveyed at a speed of 30 miles an hour and run all day, it would require a huge army of 384,000 coolies

to carry an equal amount of freight an equal distance in the same time as the single goods train. In actual practice 1,000 coolies passing along a Chinese footpath during 10 hours of daylight, or five per minute, with Chinese wheelbarrows, shoulder packs, or slings from a bamboo pole, would make a busy line of traffic, the capacity of which would not exceed 800 ton-miles per day; the cost of which, at 1s. per coolie per day, would amount to £50, or 1s. 4d. per ton-mile. Contrast with this the traffic capacity of a single line of railway employing less than 50 men and 60 tons of coal, and doing nearly 1,500,000 ton-miles of goods carriage in a day; at a rate covering permanent charges for interest on capital, maintenance, and working expenses, of one penny per ton-mile. The greatest advantage, moreover, of the improved means of transit by railway is the increased capacity of the line of overland traffic, regardless of the saving of expense.

There are many gradations in efficiency of carriers between a Chinese wheelbarrow and a railway train, and even the latter is not the final triumph of civilisation in the development of communications. Water carriage increases the unit of bulk or weight over that of a six-ton truck or a 400-ton train by 40 times, and the speed of ocean steamers is little less than the ordinary speed of a goods train. There are not the items of interest and maintenance of permanent way to pay for in ocean transit; and even when these add to the cost in a ship canal, the gains by the latter in traffic capacity from increase of unit bulk and the saving in terminal charges for transfer from waggon to ship, more than compensate for a diminution of speed. Barge canals for inland traffic cannot compete with railways, the speed being as low as three miles an hour, with delays at locks, the little extra bulk of 100-ton barges is insufficient to compensate for the loss of traffic capacity. The restoration of the speed to that of the railway system by means of the hydraulic slipway, on which barges or vessels are kept afloat on hydraulic cushions, while the cars convey them at railway speed, will resuscitate the land carriage of goods in large units of bulk at rates much

lower per ton-mile than railway freights, while the traffic capacity of slipway lines will be ten times that of the railway and twenty times that of a barge canal. The commercial success of the slipway proposed to be laid from Deptford to Croydon, which will effect an average saving on the cost of delivering coal of 1s. 3d. per ton, will probably indicate an important new departure in the extension of public works for the further increase of the population capacity of Lancashire.

The measures required for the continuation of the increase of population capacity in the United Kingdom are fairly typical of those essential to the progress of all civilised countries. The experience of statesmen in the growth of nations during the last century should be a valuable guide in dealing with problems of taxation, customs, and public works. The vital lessons are that the larger the unit of administration, where legislation is well directed to give easy access to markets and encourage industry, the greater will be the material progress and increase of population capacity. The day of the small independent State is past. Great organisations for industrial and public works, great armaments for defence, great units of power, great accretions of capital, can only be handled successfully by strong central governments; and even the largest congeries of nearly independent States without a powerful federal government with customs union, cannot progress at a rate nearly equal to a homogeneous nation. A fatal error made by many European Governments lies in their total neglect of the direction of the investment of capital. Without dictatorial measures or undue interference with liberty, capital should be given opportunity and encouragement for investment in home industries and public works, rather than foreign loans and stocks. The nation has some equitable claim on the capital amassed within its borders, and even the immediate owners of it would be ready to admit that the whole duty of the capitalist to his country is not discharged by the payment of his taxes. The investment of capital in the country of its origin is thrice blessed to the investor and his countrymen; the extension of public works and

industries and the increase of population capacity therefrom raise the standard of living, and benefit the investor as well as his countrymen by increased profits, in addition to the mere interest accruing to himself alone from a foreign investment.

Note.—After the final proofs of “The Growth of Nations” had been corrected, the British Ministry brought in a Bill “to promote the economic development of the United Kingdom and the improvement of the roads thereon.” Part II. of this Bill deals with the formation of a Board of Commissioners to construct motor roads, with no speed limit for motor traffic, and the Bill is the first approach to the institution of a Ministry of Public Works with national proprietary boards for construction and maintenance of works.

PART II.



LAND AND RACIAL PROBLEMS.

CHAPTER XIV.

ANCIENT AND MODERN IRRIGATION.

Desert Areas—Cause of Aridity—Habitableness of Desert Areas—Principles of Irrigation—Aerobic and Anaerobic Bacteria—Species of Bacteria—Fixation of Nitrogen by Bacteria—Nitrification of Arid Soil—Plant Food—Physiology of Plants—Assimilation—Effects of Flooding—Flooding in India, etc.—Furrow System—Australia—Functions of Rain—Spraying—Storage of Water for Irrigation—Wasteful Methods—Pressure Irrigation—Irrigation in England.

THE area of the land surface of the world measures about 55,000,000 square miles, one-half of which consists of arid belts lying on each side of the tropics of Cancer and Capricorn, and extending between 15° and 35° North and South latitude respectively. The equatorial belt, 30° of latitude in width, has generally copious rainfall, and with the exception of the Asiatic plateaus the temperate latitudes have also sufficient rainfall for agricultural purposes. Leaving out of consideration the Tundras of the Arctic and Antarctic regions, where aridity is due to the cold climate, and not to lack of moisture, the arid area available for cultivation under irrigation is 20,000,000 square miles. Of this area the total extent so far brought under cultivation by irrigation is 100,000 square miles, or one two-hundredth part of the total irrigable area of the world.

It is hardly necessary to remark that irrigation was one of the earliest arts practised by man in connection with the most primitive modes of agriculture. The application of water to the soil in sub-tropical agriculture is almost as essential to human life in these regions as the application of fire to the art of cooking food. No crops of any kind will grow on the arid soils of Egypt or

Mesopotamia without irrigation, and the survival of population in the former country and its complete disappearance from the latter are due entirely to the maintenance or destruction of irrigation works.

The causes of the growth of desert areas along the great arid belts are the prevalence of dry winds and the porous non-retentive nature of the soil. The great trade winds, flowing in a north-westerly direction in the southern hemisphere and south-westerly in the northern, are deprived of the moisture they acquire from the ocean at an early stage of their journey over land. Thus the eastern shores of the Continental areas, as the Pacific coasts of Asia and Australia, the east coast of South Africa, and the Atlantic coasts of North and South America, are naturally well watered by rainfall. The interior and western regions of the same Continental areas are more or less arid from the exhaustion of the moisture in the trade winds on the first prominent land they meet. These directions are reversed in the case of India, where the prevalent moisture-laden wind is the south-west monsoon. Northern Africa is desert over its entire width, from east to west, because in relation to the trade wind it is merely an extension of the continent of Asia.

It is evident that, apart from the lack of the moisture essential to the existence of vegetable and animal life, the climatic zone of the desert areas is otherwise the most favourable part of the world's surface for the existence of these forms of life. An artificial supply of the necessary water, provided it is properly applied to the soil, will therefore fit a larger proportion and value of the earth's surface for the habitation of man than the whole of the existing habitable areas. Irrigation has always proved impossible without close settlement, and the most densely populated agricultural countries are those in which the entire area is irrigated. In Egypt, where there is no rainfall of practical value to agriculture, and the industries are entirely agricultural in their origin, the density of population is 800 to the square mile. In the portions of the north-west provinces of India, dependent upon irrigation for the growth of crops, the density of

population, purely agricultural, rises as high as 1,000 to the square mile. The only factor which interferes with a high standard of health in these countries, especially in India, is the ancient and antiquated mode of applying the irrigating water to the soil by flooding. In Egypt, the hygienic evils of flooding are mitigated in regard to the damage to public health by the existence of an immense desert area, within which the entire irrigated country, 10,000 square miles, is, comparatively, only an oasis in a corner of the Sahara and Lybian Deserts, an area of three million square miles; while the damage done to the fertility of the soil by flooding is mitigated by the red water deposit of the flood Nile. The irrigable area of the world will thus maintain, when reclaimed, a population many times greater in number, with increased hygienic value, than the present population of the temperate regions; and the problem of the hygienic reclamation of arid areas is therefore one of the first importance to humanity.

Books and papers published so far upon the subject of irrigation have dealt mainly with two auxiliary branches of the subject, namely, works for collecting, storing, and supplying water for irrigation; and the results of irrigation in regard to the areas of land irrigated by the water supplied from the said works, and the value of the crops grown. The modes of applying the water to the soil have been left to the cultivator in his discretion, without guidance from the scientist who has discussed and chronicled the subject, or the governing body which has supplied the water.

The principal function of irrigation is to apply the water to the soil in the way that is best fitted to produce the highest degree of fertility, and the greatest amount and highest quality of vegetation. The study of the fertilisation of soils, the essential elements of vegetable growth, and the influence of the application of water by various modes is thus the most essential function of the science of irrigation.

The fertilisation of soils, whether they consist of the arid desert sand or the most highly cultivated loam of civilised agriculture dressed with natural or artificial

manures, is entirely dependent upon bacterial life. Bacteria in regard to their functional habits are classified generally as aerobic and anaerobic; those which take up oxygen from the air, and those which derive oxygen from carbo-hydrates or other organic substances by breaking down their constituents and setting free various less complex substances. It is not necessary that the bacteria should be of different species to vary their functional activity, the difference of process depends mainly upon environment, as under the circumstance of deprivation of air the aerobic bacteria make shift to obtain a livelihood from organic substances containing oxygen. In the absence of air, however, those species which maintain their functional activity upon oxygen derived from organic matter, are naturally prevalent, as in the subsoils and swamps of the tropics, where marsh gas and other deleterious by-products are set free and given off copiously to the atmosphere. The nitrification of the soil which forms such an important element in the food of plants is carried on most actively by aerobic bacteria, which obtain an abundant supply of nitrogen from the air along with the oxygen required to sustain life. Anaerobic bacteria, again, when introduced to the soil in manure, may thrive in the presence of air, although in this case they do not give rise to their peculiar by-products. Flooding on the top of manure or decaying vegetation, with non-aerated water, or after the air dissolved in the water has been consumed, restores anaerobic conditions.

In 1901, Beijernick was able to report upon a couple of closely allied organisms which gave a very abundant growth under highly aerobic conditions in solutions of carbo-hydrates containing no combined nitrogen; these he named *Azotobacter chroococcum* and *Azotobacter agilis*. The former was widely distributed in cultivated soils and even in dune sand; the latter was only found in river and canal waters. *A. chroococcum* was obtained from soil by the method of "elective culture" previously employed successfully by Winogradsky for the isolation of certain nitrifying organisms of anaerobic character named *Clostridium pasteurianum*.

With mixed cultures in the presence of *Azotobacter* in the soil the average yield of nitrogen is more than doubled. When *Azotobacter* is absent there is a long continued production of gas and a foamy very thin film, a strong odour of butyric acid and flocks of *Clostridia* in the bottom of the flasks. It is evident, then, that fixation of nitrogen takes place even in the absence of *Azotobacter*, but is always very low in amount, approaching the yield found by Winogradsky for his *Clostridium*.

The conditions favourable to the fixation of nitrogen from the air by bacteria are, first, aeration. All cultures on solid and porous media as against liquids give a much more rapid and luxurious growth of bacterial colonies and vegetation. The opening up of the soil by cultivation with the plough and harrow is invaluable for plant life, especially when accompanied with the application of bacteria or manure. Flooding with water, which ultimately diminishes the supply of oxygen, is most exhaustive to the soil, and in time absolutely destroys its fertility by the destruction of all aerobic and the genesis of anaerobic bacteria. Second, the presence of a base such as calcium carbonate or pure lime is advantageous, especially where the cultures of bacteria are mixed. It seems that in some way concurrence with other bacteria in the primary cultures promotes fixation of nitrogen, so long as the reaction remains alkaline, as the presence of free acid retards the growth of *Azotobacter*.

Where ammonia is formed in the cultivated soil by the action of bacteria and moulds upon nitrogenous organic matter, it is also converted by oxidation into nitrates. The latter process, "nitrification" proper, is understood to be effected in two stages by distinct species of bacteria, the one carrying the oxidation to nitrite, and the other changing the latter compound into nitrate. It is also observed that these changes invariably require the presence of a base in the constituents of the soil, usually in the widely diffused calcareous soils calcium carbonate; but where that substance is practically absent from the soil many other

bases may be found to replace it where the process of nitrification takes place. The facility with which nitrification is set up by different carbonates depends upon the rapidity with which they can re-act with a neutral ammonium salt to produce ammonium carbonate, this reaction being greater with magnesium carbonate than with calcium carbonate. The ammonium carbonate alone being directly nitrifiable, it appears to be the function of the base in nitrification to form ammonium carbonate.

Nitrification of the soil takes place without the presence of free water. It is evident that the aerobic bacteria multiply upon dry sand or soil, and the water required for their composition must be derived from moisture held in suspension in the air. The hygrometric capacity of the atmosphere increases with the temperature, and an excessively drying wind may be very fully charged with moisture, which it only parts with at a lower temperature or in response to some active vital influence. The presence of nitrates and nitrifying bacteria in desert soil is shown by the extreme fertility of the soil, displayed by the immediate germination and rapid growth of vegetation on the rare occasions of copious rainfall. The occurrence of great beds of fertilizing nitrates on the desert of Atacama in Chili, where no rainfall ever occurs, and no devastating winds blow the surface away, can only be accounted for on the hypothesis of bacterial life in rainless districts. Fertility is only absent from arid soil when it is impregnated or covered with salt. Chloride of sodium and especially the chloride of calcium are highly absorbent substances, and it is evident that no bacteria can compete successfully with these salts in the struggle for water. The moment the soil dries after leaching, that is, dissolving out the salts and running off the leaching water from the land, bacterial growth goes on and the soil becomes capable of supporting vegetable life.

No plant can live without a supply of nitrogenous food, and no plant can assimilate that food in any shape other than an aqueous solution. Nitrogen is found in the protoplasm of every plant cell and must travel from

the soil to the topmost leaf, it may be hundreds of feet, along the vascular tissue of the roots, stem, and branches. There are ten other elements of plant food supplied by the soil: iron, calcium, sodium, potassium, magnesium, chlorine, silicon, sulphur, phosphorus, and manganese. These, although in greater variety, form a very small percentage of the elements making up the tissues of plants—not so much as 5 per cent., while the other elements derived directly or indirectly (by bacterial action) from the air—carbon, oxygen, hydrogen and nitrogen—form 95 per cent. The mineral constituents of the soil along with the nitrogen are said to be *available* for plant food only when dissolved in water.

All plants feed only by drinking and breathing. They are creatures in a state of development arrested at the stage of youngest babyhood, sucking at the generous bosom of mother earth. The roots obtain water from the soil; and for this purpose they are provided with root-hairs, long unicellular structures which are outgrowths from the epidermis. The root-hairs are very closely connected with the soil, so firmly adhering that they cannot be drawn out of the ground without a considerable coating of earth. The root-hairs grow in a region behind the growing point of the root, and as the tip advances new root-hairs are formed upon it, the old ones dying off behind, so that the absorptive hairs reach always further into new soil to obtain the greatest possible amount of food-laden moisture.

The number of leaves bear a distinct relation to that of the root-hairs. The area of the foliage giving off water by transpiration requires a corresponding absorptive surface. The relation of foliage to roots is even more intimate than their relative proportions. The functions of the leaves are two-fold: respiration and assimilation. In the first of these functions, respiration, the plant consumes oxygen, forming the usual by-product with the carbo-hydrates in the cells of the plant, and in doing so the cells evolve heat and do work. Probably the main result of the work done is the raising of the sap from the root-hairs within the tissues of the plant for assimilation of the nitrogen and mineral constituents

and the transpiration of the water. Chlorophyll and starch are essential to the evolution of power in plants, and light and heat from the sun are necessary for their production.

The power required for the active processes of nutrition is only a fraction of the total effort exerted by the plant in raising its food in solution from the roots. With the vast supply of carbon assimilated from the air through the leaves, the mineral constituents and nitrogen are raised in sufficient quantities to provide for growth, storage and fruition. These are the visible results of plant life and constitute their sole economic value.

From these data it is apparent that while the presence of water is absolutely necessary for plant life, it is not a mere mass of water run on anyhow to the soil that can be assimilated. Except for aquatic plants which are generally economically useless, a stagnant pond is the worst arrangement of soil water for the development of healthy vegetation. Instead of 5 per cent. of mineral and nitrogenous food the water absorbed conveys 0.5 or 0.05 per cent. Respiration is forced, to get rid of the superabundant moisture on the hot desert air; the active cells of the plant, notwithstanding diminished nutrition, have to toil hard to raise ten or twenty times the normal weight of water through the vascular tissues, growth is retarded and fruition never brought to ripening until the useful cereal or leguminous plant dies without the possibility of reproduction, making way for the coarse rank herbage of the marsh, and swelling the mass of vegetable decay. The timely running off of flood water, or allowing the pond to dry up with the growth of cotton or flood rice, will save the crop and allow ripening to take place, but successive crops grown by perennial flooding even of these water-loving plants quickly reduces the quality of the crop and exhausts the fertility of the soil.

The food of plants is not only thinned out by an excess of water on the soil, the most serious mischief done by flooding consists in drowning the aerobic bacteria which, when allowed a sufficient supply of air, replenish the nitrogenous plant-food in the soil. Their places are

occupied by anaerobic bacteria, which are a poor substitute as producers of nitrates, and many species of which propagate by spores difficult to eradicate, while some disseminate disease both in the animal and vegetable kingdom. The diseases of malaria, ague, rheumatism and other fevers are due to sporadic bacteria generated in tropical marshes and carried by winged messengers far and near to desolate a much wider area than the marshy fields that gave them birth.

The poorest quality and shortest staple of cotton produced in the world is that grown by impoverished peasants on Indian irrigated land. The labour of flooding his diminutive farm, either from a well dug by his forefathers or himself, or from a canal constructed by famine relief labour under the pressure of the fear of death from starvation, leaves time and energy insufficient for the cultivation of an area large enough to support life on a scale of even a minimum of comfort. The land has gradually sickened from long continued flood irrigation, and the exhaustion of bases required to correct the acids generated by anaerobic bacteria. In Louisiana large areas of cotton lands have dropped entirely out of cultivation from similar causes. The introduction of perennial irrigation by flooding for the growth of cotton and flood rice with water from the canals at low Nile which contains no fertilising red sediment, has gradually exhausted a large area of the original cotton lands in Lower Egypt.

The ancient Carthaginians introduced to the low-lying lands of Valencia and the now forlorn swamps of Estremadura a system of irrigation which applies the water to the soil, on which they cultivated orchards and vineyards, by means of ditches leading the water between rows of trees and guiding the precious fluid round the roots at a sufficient distance from the plants to allow it to soak the earth without cutting off the supply of air. Their methods survived the race that introduced them, their successors, the Romans and the Moors, and came down to the Spanish fathers who founded the haciendas of Southern California at San Bernardino and Los Angeles. Their American successors have

improved and extended the system, and created a fruit industry greater in magnitude than any the old world ever saw. Australia has imported the Carthaginian method from the United States, and Mildura and Renmark export fruits which are nowhere excelled. The furrow system, although more generous and consistent with enduring fertility, involves no less labour for the cultivator than does its more widely applied rival, the flooding method of irrigation. The application of the water to the soil by furrows or ditches requires both care and experience to ensure the best results. The furrows between the rows of trees must have a certain inclination, no more and no less, to cause the water to flow slowly along from the cross ditch or flume at the upper end of the field to the closed end of each furrow. The lower end of the furrow must be closed to prevent the irrigating water flowing off with the "goodness" of the soil. The cultivator must follow up from the sluice he has opened to guide the water round the trees by opening temporary trenches with his hoe. His path lies all day in the flowing furrows, the water half way up to his knees, with blazing sunshine on his head. He deserves the most bountiful harvest nature and art can bestow in return for labour under such conditions.

The Australian irrigator is trying to combine the two systems—to grow green crops on the same farm as his orchard. A great system of the partial irrigation of stock farms or sheep runs forms not only a magnificent insurance against loss by drought, but gives a permanent increase of the carrying capacity of the land for live stock which yields most remunerative returns. Stock routes have been opened many hundreds of miles in length by which communication with markets is insured for valuable stock which might otherwise be a total loss in time of temporary scarcity or drought. Artesian bores and storage of water (in many instances in Australia the reservoirs are covered to prevent evaporation), have doubled or trebled the value of Australian land in the last few years, and the addition to the wealth of an arid country brought by judicious irrigation, especially

where not confined to the growth of flood crops, is incalculable.

Natural irrigation consists in the application of water to the soil by rainfall. River floods and the fluctuation of lake waters give temporary irrigation to narrow strips of ground in some favoured countries, but the main function of rivers is drainage; no country can properly be said to be "watered by" rivers. The presence of great natural drains in a country indicates a considerable amount of rainfall over some part of the drainage area, and the country blest with well-distributed rivers depends upon the rainfall from which they are supplied with water for natural irrigation.

Frequent and gentle rainfall, supplemented by heavy dews, maintains vegetation by soaking the soil and subsoil with thoroughly aerated water, which washes down the nitrogen to the roots of plants, and dissolves the mineral plant-food in the soil so as to make it available for assimilation. It conserves the work of plants in raising sap from the roots, by washing the stems and foliage and favouring the direct assimilation of moisture, diminishing respiration, and adding to the growth of the plant and the storage of food. The fertility of the soil is maintained and even increased by the encouragement of aerobic bacteria on the surface layers under the influence of ample oxygenation of the water and free play of the wind in friable materials.

Artificial application of water to the soil, for complete success, must observe these natural conditions. The beautiful velvet pile of English lawn grass can only be obtained even in England by frequent watering with spray from a hose or sprinkler, alternating with rolling and mowing. Kew Gardens, and most of the private gardens and public parks depend for their luxuriance and perfection of vegetation upon the plentiful use of the hose in the application of aerated water. It is impossible to grow wheat or other cereals to perfection by flood irrigation, and only an extensive system of overhead spraying can develop their growth in arid countries. A very small quantity of water applied in spray in the earlier stages of growth will suffice to

produce on arid soil a heavy crop of wheat ; Sir Samuel McCaughey, in Australia, puts it as low as $4\frac{1}{2}$ inches to a crop. The depth usually allowed on the flood system for most crops is from 20 inches to 2 feet.

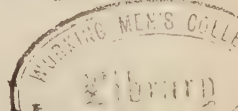
The conservation and storage of water for irrigation is now engaging the attention of every civilised government. The Indian Government have led the way in the construction of immense reservoirs and the formation of main canals and distributories, many of which convey great rivers over a distance three times the length of the United Kingdom. The extent of irrigated land in India is 44 million acres, or nearly 70,000 square miles, an area considerably greater than England and Wales. The United States of America comes next in the magnitude of her undertakings and the area reclaimed—nearly 10 million acres ; and Egypt, which depends for its existence entirely upon irrigation, is a respectable third, with an area of over 6 million acres, or 10,000 square miles. The ancient works in the southern provinces of Spain irrigate 2,800,000 acres ; and Algerian France has made great reclamations from the desert by storage of surface waters and artesian bores. Australia, after studying Indian and American methods, is working out her own salvation by methods more appropriate to her circumstances, in adapting irrigation to stock farms and routes as well as to fruit, vineyards, and green crops. South African farmers are assisted by their Governments with the use of boring apparatus for the recovery of underground waters, and with capital for the construction of works.

The ancient systems of works and irrigation are exemplified in India and Egypt in the magnificent works carried out under the supervision of English engineers. The open canals and reservoirs of India make no attempt to conserve its ample water supply, which is lavishly distributed for flooding irrigation, subject to a loss of two-thirds of its volume in transmission from soakage and evaporation. A splendid aqueduct was built of masonry over the River Kali Nadi at a cost of £387,000 for a length of 1,000 feet, to convey the waters of a canal for irrigation, which

American engineers would have passed through a wooden syphon for one-tenth of the money. Egypt is somewhat more modern in its development, from the introduction by Mehemet Ali of perennial irrigation, although this system combined with the application of the water by flooding threatens the ultimate defertilisation of the soil. In America the conveyance of the water to a large extent by wooden flumes and pipes, steel and iron piping, and concrete-lined canals, conserves their scanty local water-supply on modern lines, and the application of the water to the soil by furrows and ditching is more economical and consistent with the maintenance of the fertility of the soil than flooding. The Americans have also tackled the problem of the irrigation of high-lying and undulating land, by pumping and pressure within pipes; whereas the Indian and Egyptian systems are, with one minor exception—the Divi installation in India—purely gravitation systems, incapable of extension beyond the low-lying level plains. The earliest installations in Australia, at Mildura and Renmark, are dependent upon pumping from the Murray River, and apply the water by furrows. In Western Australia a strip of country nearly 300 miles in length, leading to the Coolgardie goldfields, is irrigated from the Goldfields water main, rising a height of over 1,200 feet.

There is nothing unnatural or extravagant in power installations for irrigation. Every plant that grows raises the sap by the power generated in its cells. It is only possible to obtain water by gravitation at the expense of the formation of costly reservoirs and canals of enormous length. The annual charge for fuel in pressure installations seldom exceeds the interest upon the initial outlay for gravitation works. In the water-supply for towns the average annual cost of pumping installations is less than the charges levied on gravitation supplies. The area of irrigable land open for reclamation by pressure systems is 200 times the total area open to gravitation works.

In the United States of America, where pressure installations for irrigation have been chiefly developed, the entire local water-supply of the arid region, when



fully utilised, is estimated to be equal to the irrigation of 36 million acres. The total arid area suitable for irrigation under pressure is 610 million acres. There is ample rainfall over the eastern and southern States to supply the deficiency from their surplus waters, now flowing uselessly into the Gulf of Mexico. A large area of the northern arid States may be supplied from the upper Mississippi and the lakes with a saving of 600 feet of head; but the immense drainage-area of the lower Mississippi, the Alabama, the Tennessee, the Ohio, and other rivers containing the largest fresh water supply of any district in the world, will furnish a supply fully equal to the demands of the entire arid area of the United States when applied by pipes and pumping installations.

The Australian Government of New South Wales are establishing an experimental farm on the territory to be irrigated by the water stored at "Barren Jack" reservoir, for the development of modern methods of applying water to the soil, with a view to the growth of wheat and other cereals by irrigation. The new Ministry of Public Works of the reformed Turkish Government have the method of overhead spraying under consideration in view of extensive pressure installations for the revival of irrigation in Mesopotamia; and even conservative England is waking up to the possibility of a closer settlement of her undulating but arid chalk lands under the revivifying influence of pressure irrigation.

About half the arable area of England consists of chalk downs and cretaceous sands, which, without artificial irrigation, owing to their permeable nature, do not retain rain-water on the surface long enough to maintain the fertility of the soil after a day or two of sunshine. These lands have now, owing to foreign competition in agricultural produce, largely fallen out of cultivation, and are let for grazing purposes as low as 5s. per acre per annum. Owing to the elevated and undulating surface of the downs, it is impossible to apply artificial irrigation by ancient methods as open canals and flooding by gravitation. The only way it is practicable to irrigate the soil of England is by distributing the

water-supply under pressure within pipes, and applying it to the surface in the form of spray from overhead spraying pipes. The apparatus required for automatically varying the pressure within the spraying pipes so as to distribute the spray with sufficient uniformity over the soil is extremely simple, and the system relieves the cultivator of the soil of any labour for the purpose of irrigation.

The increase in the value of the cretaceous arable lands by irrigation, from 5s. to 65s. yearly rental, would make the installation of the system by the Government a highly remunerative national work, the capital expenditure upon which might reach in course of years the colossal amount of one hundred and fifty million pounds sterling, which would yield returns equal to three times that amount. Besides forming a magnificent additional national asset, providing food supplies from the soil of the country, this beneficent work would provide immediate paying labour for the unemployed, and adapt half the area of England for closer settlement of her rural population.

CHAPTER XV.

A PLEA FOR THE WHITE MAN.

The Descent of Man—Differentiation—Function of Clothing in Whites—Mixture of Black and White—Modesty—Inferiority of Black Races—Permanence of Race—"Yellow" Races—Hybrid Races—Efficiency of Governments—White Rule in India—White and Black in South Africa—Zulu Customs and Increase—The Black Peril in South Africa—Oppressive Effect of White Intellect—Effects of Religion—Effects of Education—Effects of Fecundity—Table, Black and White Population of British Empire—Franchise—Pauper Element—Government Prohibition of White Marriage—Duty of a Constructive Government.

IN considering the differences between the various races of mankind, the distinction of colour naturally comes first as being the most obvious distinguishing feature, forming the setting of the moral, intellectual, and physical qualities of race. The unity of man as a species of domesticated animal is indisputable, but the wide range of mental function developed in man upon the physical animal foundation admits of differences so profound and far-reaching in their effects upon life that racial differences may well have an appearance of actual specific variety. No such difference exists in the physical types of men as in those of dogs, yet the smallest spaniel or ching is equally canine with the mastiff or Newfoundland retriever. The evolution of man, like the evolution of dogs, must have been from a common stock of ancestors, the ancestors, like their progeny, possessing an infinite variety of personal traits, all essentially pro-human. Colour, like any other racial

property, is simply a throw back upon a pro-human variety possessing that trait, and is a very obvious index of less noticeable traits, physical and mental, selected from branches of our pro-human stock.

The excessive modesty of the owners of the proud possession of a genealogical tree generally places some obscure ancestor in the position of the main stem, ignoring the roots, and the present generation dangle like separate apples from every tiny twig. The ancestors, generally very small men physically, if judged by the suits of armour left as decorations of ancestral halls, should be shown as the hair-like appendages of the roots, the main stem the existing representative of the family, and the fruits will naturally represent the future progeny. By going far enough back each man will find that his ancestors in a single generation number many millions, and his characteristic traits are those common to the main stock from which he is derived. The differentiation of white from black is thus caused by inheritance from ancestral stock, defined and intensified by isolation of stocks and survival of the fittest for the respective environments.

On the West Coast of Africa, it is said, 90 per cent. of the black babies die within the first year. Mosquitoes and other flies abound, with tropical accumulations of decaying vegetable and animal matter. The naked bodies of infants are exposed to the attacks of these insects, with the natural result that the survivors are those possessed of the thickest and darkest skins. Clothing has always proved a difficulty in the rearing of black infants. Its protective properties from outside attack may easily be neutralised by the difficulty of adaptation to a black skin. The adult black man, compelled to wear clothing by the exigencies of modern civilisation, is notoriously unhealthy as compared with his brethren in a state of nature. The comparatively high rate of mortality among the African natives on the Transvaal mines is due largely to the strange clothing to which the black man is subjected. The hygienic and food conditions are superior to those of his native place, and yet the mortality mounts from the normal rate,

under 10, to 70 or 80 per thousand per annum, with a corresponding diminution of general health. The moment his contract expires, the black man resumes in his native place his original nudity, with a return to his former health conditions.

The most essential characteristic of the white man is clothing. Poverty does not diminish the quantity; however poor he is his rags are abundant. From the hour of birth the white infant is swaddled in bandages, from the bambino of the Italians rolled up like a mummy, to the baby of the English clad in flowing robes. The clothing is required not merely for warmth—it is as essential in the tropics as in temperate climes. For free respiration from the skin, as a protection from rough contact with outer material things, and as a protection from over-stimulus of the nerves by the most gentle handling or rubbing, from even a glance of the eye; clothing is an absolute necessity for the white type from earliest infancy.

There is no going back in racial development. The differentiation of stocks from isolation tends to increase—type is persistent. The occasional crossing of white and black, “the touch of the tarbrush,” is invariably due to the isolation of the white man in a black community. Slavery and other unnatural economic conditions, generally temporary and due to the easier migration of the male white, have produced a Grikua, Eurasian, or other race of hybrids; but none of these cases of the intermingling of black and white can be ascribed to natural selection. Whatever the black races may think of the results, nothing but a pitying contempt is felt by the whites. The *liaison* is dying out with improved means of communication and closer settlement.

An important accompaniment, if not a result, of the development of the white skin, with its sensitive nervous organism, is the innate feeling of personal modesty. The black races are no doubt endowed with their own sense of self-respect, but the black countenance is “born to blush unseen.” It is naturally painful for a white person to remain unclothed. To be seen in such a condition causes a confusion and distress of mind

only assuaged by the immediate shelter of clothing. This is no effect of Christianity or any other form of religion. It is entirely natural, and not in any degree shared by the black races. Its development was prior to the introduction of the Christian religion, and the greatest error of policy made by ecclesiastics was to arrogate modesty. The mischief done by the Church did not, unfortunately, stop there. They proceeded to ban the natural passions of man, guarded naturally and efficiently by the sense of modesty, as sin. They passed laws enjoining celibacy upon a large and influential section of the white race, as the highest good; upon the whole community "the mortification of the lusts of the flesh" as the first essential to "salvation." Morality was divorced from altruism, and the term more or less exclusively devoted to the negation of the sexual instinct. The mistake has shaken Christianity to its foundation, and the entire fabric of European ecclesiasticism will have to be rebuilt upon its original foundation of altruism. The natural modesty of clothed white humanity is the permanent bulwark of the monogamous married state and the sacred institution of the family.

While the black races throughout the world show an orderly institution of married and family life, there are many features of their social state which show in a marked degree their inferiority of constitution to the white races. In India the only safeguard against female infanticide is the stern and inflexible regulation introduced and maintained by a white government. The slightest relaxation of the administration of these laws is followed by the revival of the odious custom, owing to the pressure of marriage customs and social and religious prejudices which the law cannot deal with. In Africa the status of women amongst the black races is difficult to distinguish from slavery. Wives are bought from their parents, and the man's wealth consists in the number of wives he has purchased to work for him along with his other cattle. The chief cause and evidence of degradation among the white races, as the English, consists in the outside labour of women, caused in the first place by the underpayment of men, and accentuated

by the competition of female labour. The recognition of the false economic state of England, in the various Factory Acts restricting the hours of labour of women and children, is an indication of racial superiority.

The development of race, like the development of species, consists in differentiation by the isolation of stocks. Each race tends to accentuation by traits where no inter-breeding takes place, and any permanent amalgamation of white and black races cannot now be anticipated. Physical development must proceed upon white and black lines respectively; even if the intellectually superior race should impress upon the inferior their learning, religion, or laws, the results are exotic and evanescent. No black race has ever constructed a railway, established a line of shipping, or inaugurated modern public works. As the monkeys warm themselves over a fire but have not the sense to throw on a stick to keep it up, the black races use the railways and public works constructed by the skill of the white man, but cannot even maintain them on his withdrawal. The lower ground of metaphysical quibbling occupied by the white man of mediæval times has been abandoned to the blacks, who accept it with natural avidity. Scientific research on Baconian lines does not appeal to the black intellect, while saltatory "faith" is peculiarly acceptable. In practical life unskilled labour and trade, where the latter is confined to the art of peddling, are his peculiar fields.

In the whole field of nature the orders, classes, and species develop each in their own path; no one species makes a stepping stone of higher species towards a higher class, and no animal ever leaves its class to fill one in a higher order. The black man will never develop into a white man. The adoption of the white fashions, the assimilation of white learning or religion, may bring him apparently to the same level socially as the white man with similar properties. A rare individual appears endowed with all the mental characteristics of a white man. The impression upon the race made by the individual is no more than that made by a white man interesting himself in the elevation of the

black. It is theoretically conceivable that a black civilisation might be evolved equal to, or higher than, that of the whites. But the premises of evolution are unknown and belong to the unknowable, the only data to calculate from are those of history. The mystery of throwing back upon the stock may defeat in a single generation the work on the individual. It is the stock that has to be dealt with, and only the hand of nature can do the work.

The so-called yellow races present no such ethnological difference from the whites as to exclude them from the category of the clothed races. To classify the black races of Hindostan with the whites under the term Aryan, because of some real or fancied similarity of language, when so great a gulf is fixed between their physical development and instinctive *morale* and that of the whites, is misleading upon the main question of respective values. A residence of four years (1870-4) in China and Japan, with the intimate relations conducted by the service of the latter Government, has given the writer a familiar acquaintance with both races at home. The stock is as white under the skin as any European race. The characteristic traits in the mass may, and certainly will in time, reach as high a development as in the most favoured of the Caucasian stock. The average Chinaman excelled the average Japanese in those days in physique and *morale*, yet the Japanese development has been rapid during the interval, while the Chinaman has apparently stood still. It has naturally taken a longer time to overcome the inertia of the greater country, but when fairly started the progress of the greater mass will be endowed with increased momentum. Development must properly take place at home, the Caucasian settler of the Antipodes naturally objects to being mixed up at the outset of his career with the crude undeveloped outcasts from Eastern Asia. Centuries of enlightened statecraft and civil labour lie before the white Asiatic, but while he sets his house in order a good deal of similar work must be done even in enlightened England and Europe, if the Western branch of the white race is to hold its own.

Combinations of the black races have not been successful. The mulatto from black and white takes a lower place in the ethnographic scale than the white, and in the same way the mixture of Hindoo and African blood is inferior to the best, whichever of the black races that is. So undesirable is a mixed black race that in the regulations for the immigration of British Indians to Uganda it is proposed that the immigrants should be confined to the status of married men, and that they should not be admitted without their wives. The immigration of Hindus is a pet fancy of the Colonial Office official, invariably opposed in modern times by the European and English settlers, who might be supposed to benefit by the Indian cheap labour. Quantity, not quality, is the desideratum of the Colonial Office, but the social and economic complications introduced with hybrid races have more weight with the practical settler who has to make his home and livelihood in their midst. The chief evil of Colonial Office rule lies in the influence exercised by birds-of-passage in the position of Crown Colony Governors and their staffs. With no vital interest in the ethnological development of the country under their care, and a very lively interest in keeping hereditary rulers in Parliament sweet for future advancement, the man on the spot from Downing Street might as well have stayed there as live in the country to look at everything through Parliamentary spectacles. White settlers have been taught by bitter experience in Natal and other white men's countries the social and economic evils of hybrid black races. Between a native question and an Indian problem the white men of Natal and the Transvaal possess a bond of union stronger than the dominance of the professional politicians who won a way to power by raising an imaginary "Chinese slavery" scandal about their ears.

The multiplication of the black races in the British Empire is its greatest peril. No black race has ever shown the faculty for efficient government. The standard of efficiency is an increasing population at a rate not less than 1 per cent. per annum. As a rule, the normal law as regards population is that it increases

about 1 per cent. per annum, unless checked by unhealthy agencies. Unhealthy agencies are war, pestilence, and famine. It is now universally admitted, even by the veriest economic cranks, the *laissez faire* school, that Government is solely responsible for the preservation of humanity from all three evils in every shape and form. But the science of constructive government is very imperfectly understood by whites and is utterly unknown to black races. Its greatest hindrance amongst the whites is representative institutions, which tend merely to honest administration, but are adverse to constructive reform. Hence the steady decline in the rate of increase of the white nations, now wholly given over to representative government, except in Germany, the only country in Europe showing signs of vitality. Honesty and stupidity go hand-in-hand upon our Parliaments and municipal councils, and choose the easiest way to raise money by the fear of distraint upon their householders. The suppression of births by levying rates and taxes upon the furniture of the families is so easy and obvious to the meanest intelligence that the representative elected cannot avoid the path.

British India presents a remarkable contrast to Great Britain and Ireland. There 245 millions of black people are governed autocratically by a handful of English, and 55 millions more are governed by rulers of their own race. The result, in the ten years 1891 to 1901, is that the population of the British-ruled territory has increased at the rate of 4·82 per cent., and the population of the States under native rule has decreased by 5·47 per cent. In British-ruled India there are no rates, taxation is wholly indirect, and the larger proportion of the Government revenues are now derived from remunerative public works carried out by the State. Our worthy bankers in England would pause in their studies of bees to exclaim in horror at the sight of State "trading," if economic heresies like the last were taught in fanatical England. But white Indian financiers can anticipate the contingency of an enormous national revenue being ultimately derived wholly from productive public works, and coolly proceed to run the country they are in

irresponsible charge of upon purely business principles.

In South Africa, under British Colonial Government, which rules over the black races autocratically, the increase of the black population during the last 18 years has been at the rate of 120 per cent. The increase of the white population in the same territories under their own representative government during the same period has amounted to only 65 per cent., although assisted by a large immigration of whites. The rate of increase of the white population is in itself 3·6 per cent. per annum—unusually large for a white country; but contrasted with the rate of black increase, 6·6 per cent. per annum, it sinks to insignificance. It is evident that under British rule South Africa is going to be a black man's country, for, as they increase in numbers and rise in civilisation, it is extremely improbable that the virile Zulus and Basutos will remain satisfied with a servile position.

The causes of the unprecedented rate of increase of the black races in South Africa during the last 18 or 20 years are peculiar to the economic circumstances and history of the country. For centuries the population was kept down by internecine warfare. Even the conquering tribes had to maintain a military organisation under which the men dare not marry under 40 years of age, a regulation which in a monogamous country would probably have been sufficient in itself to prevent increase of population. The institution of polygamy, however, counteracted the effects of the prolonged celibacy of adult men. Its advantages to the tribe or nation were that no woman went unmarried, and although the men married somewhat late in life the families were large, the births numerous, and the children had sound constitutions and an excellent start in life. Without advocating a return to polygamy for the extension of the white races, it is permissible to observe its effects upon some black races, and in regard to the Zulu military organisation the domestic institution of polygamy was beneficent. No Zulu woman went through life unmarried. It is difficult to see how the lives of maidens could have been occupied otherwise in that country.

The laundrying, white-seam, factory, typewriting, or slop industries could not exist in a nation going unclad, with no correspondence. No Catholic priesthood was there to suggest the grotesque idea of making a life's profession of "chastity." The tribe or nation was ruled by an astute tyrant on as strictly business principles as British India. The chief crop he required for military purposes was young men, a liberal supply to replace the wastage of war, and he got them. The wastage of war has ceased under white rule, and the continuance of domestic and economic arrangements specially adapted for prolific generation bears the fruit of $6\frac{2}{3}$ per cent. increase per annum, the most marvellous fecundity ever witnessed in the human race.

It is no puny race of physical weaklings that springs into existence in the kraals of South Africa. Men, the purpose of whose existence for centuries past has been warfare, are not likely to beat their spears into ploughshares with the most magnificent booty the world has ever seen growing daily under their eyes. Although the Empire contains over six times as many black men as white, the British Government did not arm a single black subject against the Boers. Why? The answer was "this is a white man's war" (Balfour). Twice the British Government had saved the Boers from extinction by the black races. Already, within six years of the Boer war, the white races are welded into one by the immanence of the black peril. Only Downing Street remains unaware of its magnitude, and insults Natal with a cheque sent in payment of salary to its State prisoner. If the successors of Exeter Hall remain two years longer in Parliament Street Mansions, they will probably progress far enough to emulate the chivalrous war code of the Maoris, and provision the enemy in the middle of a siege.

Mentally the Zulu is on a level with an irresponsible truant schoolboy. But the schoolboy is being taught by his masters. With knowledge an increase of mental strength and judgment will come, and with these the realisation of the overwhelming power of numbers possessed by the black races in South Africa. It only

requires able leadership to give it organisation and discipline, to make of this great black population a most formidable fighting force.

The conversion of the black population of the British Empire to Christianity cannot be looked to for protection from the black peril. In the first place the numerical magnitude of the work stamps it upon historical evidence as impossible. The mental superiority of the Christianising race carries great weight upon individuals, but in relation to the mass of black men intellectual superiority is purely oppressive. What persuasive effect has the intellectual superiority of the classes on the masses in white countries? The negation of influence of class over mass in white countries is only accentuated by difference of race and colour. Time has not ameliorated the differences of black and white in the United States of America. Religion has had the finest opportunity there that it ever had in the world, dealing with a simple, credulous people in the presence of a majority of the superior race. The said majority has become oppressive both in intellectual and physical pressure on the black race. The only defence of the black race lies in their fecundity, which has created the black problem in the United States, as it is fast rearing the same problem throughout the world.

Besides the impossibility of converting the black races to the religion of the white, the result of such conversion, if it were possible, is not a foregone conclusion. Has the result of religion upon the white races been the abolition of warfare? "*Dieu et mon droit*" is still the war-cry of the most civilised. The failure of religion has led to panaceas of a still more futile character. Commercialism, the gospel of free trade, preached for a period of 60 years in Europe, finds the white races more heavily armed and more strenuously protected at its close than at its inception. Labour-Socialism, a sturdy infant, begins to raise its raucous voice in Congress and Parliament, to cement the peace and goodwill among men by setting class against class. Arbitration, while permissive, carries no weight, and does not relieve the tension by the suppression of a single

battleship. Compulsory arbitration by an armed international police is more strenuously opposed by the small republics and the labour congresses, than by any other sections of the community. The only appearance of silver lining on the cloud of warfare arises from the suppression of religious fanaticism by the light of modern science, and the transmission of the woful heritage of the religions of the whites to the black man would certainly not make for peace.

The black peril is already upon the world. It does not merely consist in the possibility of the improvement of the black races leading directly to a rising of the black against white, and sanguinary race warfare such as has never been recorded in history. The first black peril is the crowding out of the whites. The earth is to become the possession of intelligent labour. At the moment intelligent labour is the property of the white man. Hence his political superiority, his faculty for government, his preponderance in the arts and sciences. On the groundwork of great and increasing superiority of numbers, the superstructure of education will develop intelligence leading to political and social power, making the black man effectively the equal of the white.

The merest beginning of this process in America and India has indicated the inevitable results of its progress towards realisation. The discontented among the American negroes are the educated section. The educated baboo has been the sole source of trouble in India. The military Mohammedan races of India are loyal to their salt, and support the domination of the white race, to which they are closely allied by ethnological ties. The black Bengalee is the more irreconcilable the more highly he is educated in European culture. His so-called Aryan descent is a pure fiction of the bookman belied by his black skin and his degraded customs.

In South Africa the white man is confronted with the problem in proportions that overwhelm all other political issues. Boer and Briton are united by the instinct of self-preservation in the endeavour to segregate the overwhelming numbers of the black. The black

in the meantime plays his trump card of increased fecundity under the shelter of the *pax Britannica*. The white settler retains political power and education at present, what his fate in the future will be in the face of the efforts of Church and State to promote education among the blacks remains to be seen. While the white local government nips rebellion in the bud, the Imperial Government withdraws its troops and subsidises the black man's defence. These are only passing phases of the main trend of affairs. The theory that the immense preponderance of the black element in the Empire gains the black majority the sole right to be heard and considered in Westminster has been taken for granted by an unpractical Church, an ignorant Labour party, and a sycophantic political caucus.

The existing population of the British Empire in white and black is as follows :—

—	White.	Black.	Revenue per Head.
			£ s. d.
U.K. Great Britain and Ireland	44,100,000	—	3 5 8
Gibraltar, Malta & Cyprus	450,000	—	2 4 6
Empire of India	500,000	299,500,000	0 6 6
Ceylon and Maldives ..	20,000	3,980,000	} 1 3 0
Eastern Asia	10,000	999,000	
South Africa	1,133,677	5,196,362	} 0 9 0
West Africa	—	33,000,000	
East and Central Africa ..	300	8,000,000	} 7 16 0
Mauritius, Seychelles, &c.	1,000	390,000	
Commonwealth of Australia	4,100,000	18,000	} 2 17 0
Dominion of New Zealand	888,578	60,071	
Dominion of Canada, New- foundland, &c.	5,600,000	50,000	0 8 0
West India Isles and South America	109,000	1,393,000	
	56,912,555	352,595,443	

Equal .. 14 per cent. 86 per cent.
Equal .. 1 to 6.14

The last column shows the Government revenues of each province of the Empire, but does not include municipal taxation. The highest, Australasia, and the lowest, India, include the revenue derived from remunerative public works, as railway fares and freight rates, and rates for irrigation water. The revenue derived from the white population of South Africa is the highest in the world, but in this table it is included in that from the whole black population of British Africa. A similar arrangement affects the return from the West India Islands and South America.

Probably the revenue return per head of the black population throughout the British Empire is about 2s. 6d., while the white population will average not less than £5. The white race bears the additional burdens of municipal rates averaging £3 per head, and house rent averaging another £5 per head. From both the latter burdens the black inhabitant is practically exempt; clothing costs him very little, and food is of the simplest and least expensive varieties. The cost of living for a white man is probably two or three hundred times the total expenditure of his black compatriot.

The burden of responsibility is carried by comparatively few shoulders in the United Kingdom. Out of 44 millions of inhabitants only 6,700,000 have the privilege of voting for a member of Parliament. But taking the entire population of the British Empire—nearly 410 millions—the franchise is extended to only 10 millions; so that the responsible electors of the governing bodies are under $2\frac{1}{2}$ per cent. of the population. The inference is plain, that an empire, 86 per cent. of which is black, is considered unfit for representative government. The extent of the franchise shrinks daily with the increasing proportion of the black population. White women in the United Kingdom are excluded from the franchise, with the black men, throughout the Empire. But the white woman bears her full share of the white man's financial burden. The franchise is the bulwark maintained by the white minority for its protection from the politics of the black majority. There can be no other reason for the refusal of the franchise to white

women, and it would be interesting to hear from the opponents of women's suffrage the particular line of politics from which the white minority are being defended in their case.

The treatment of white women at the hands of their lords and masters is too large a subject for a paper which is only a plea for white men. So far as subjection to the financial burdens of the State, white women rank on a par with white men; it is only at the voting booth the former are ranged on a level with paupers and minors. The financial burdens of the British Empire are thus borne by nearly 5 per cent. (including white women) of the population, and 95 per cent. of the people are classified as paupers, minors, or lunatics. The most appropriate ruler over an empire mainly peopled by paupers is surely "a king of shreds and patches." His Majesty's Ministers do no honour to the great "Peacemaker," by using the *pax B.* solely for the cultivation of the pauper element in the Empire.

In to-day's *Telegraph* an advertisement appears, part of it as follows: "Three Telegraph Foremen required for Southern Nigeria. . . . Aged 25 to 35; *preferably unmarried*. Salary, £250 a year, with bush allowance of 5s. a day whilst serving in the Colony. Free *single* quarters provided in established stations. . . .

"Candidates must have had independent charge of telegraph construction parties and be acquainted with the usual duties of a telegraph foreman of works. Strict medical examination. Applications by letter, stating age, whether *married* or single, and giving full particulars of experience . . . received by the Crown Agents for the Colonies, Whitehall Gardens, S.W., up to September 16th."

A more direct penalisation and prohibition of the marriage of the highest rank of the white man, the educated and experienced engineering specialist 25 to 35 years of age, was never issued in a papal encyclical. The Crown Agents for the Colonies are clearly traitors of the deepest dye to the white empire. The best and most fit mentally and physically of the white population of Nigeria has marriage actually prohibited, while the

worst of the black population may have 50 wives and any number of concubines and children. There is little doubt that if the white race were not misrepresented in the House of Commons by the exclusion of women, the Government's prohibition of marriage for the white race would be abrogated, and the misogynists who administer such inhuman regulations, dismissed.

The duty of a constructive government of white men, in order to progress towards a white empire, is put shortly as follows :—

1. All economic legislation should foster and encourage white marriage and increase.
2. Prohibit polygamy in future for the black races.
3. Institute a settler's bureau with sufficient State capital to advance implements, seed, and food for the first year's settlement, to white men passing examination in agriculture, and marrying.
4. Irrigate the arid lands throughout the Empire, by a pressure system relieving the cultivator of the labour of irrigation at a water-rent charge.

NOTE.—The emigration from the United Kingdom to the United States of America in the year 1906 was 64 per cent. of the total balance, 327,000, and only 36 per cent. went to British territory. Irrigation, closer settlement, and Government supplies to married settlers during the first year of settlement are the only practical inducements to offer for the conservation of the white population within the British Empire.

5. Irrigate the chalk lands of England for closer settlement.
6. Legislate for the increase of white men's wages to a standard capable of supporting the family by men's labour alone, and gradually abolish female factory and office labour.
7. The establishment of reserve funds for wages by companies putting aside to reserve for shareholders' dividends.
8. Tariff reform for the raising of local revenues, and the abolition of municipal rates and distraint of household furniture.

Not one of these reforms has ever been suggested by any political party or programme, and yet for the development of a white empire they are absolutely essential. Nothing can speak more eloquently of the fatuous ignorance of the white politician upon the all-important subject of the selection of race in peopling the world. The development of the best and highest ethnological stocks of the human race is the special work allotted to man by the Creator. The betrayal of this trust by the clergy and politicians is mortal sin. It remains for the intelligent mass of white men to rise in all their might, and replace the effete administrations of modern civilisation with constructive governments who will set themselves to encourage and foster the propagation of their stock, and make the whole world a white man's habitation.

CHAPTER XVI.

A PLEA FOR WHITE WOMEN.

Status of Women—American Woman—Family Unit—Hebraic Influences—Hebrew Practice—Elevation of Women by the Captivity—Roman Civilisation—Influence of Roman Catholicism—Mediæval Brutality to Women—Penalised Divorce—Suffering of Families—Political Remedies—Effects of National Wealth—Female Out-Work—State Feeding of Children—Effects of Emigration—Effects of Individualism—Industrial Organisation—Reforms Required—The Stateswoman.

THE white woman is the highest ideal of life. Before the canonization of the "Holy Virgin" as the Queen of Heaven, or the conversion of the ideal of an angel from the young man of the Israelites to the young woman of the Christians, the Alruna wife of the Norse races was the rewarder of the victor, the purifier of humanity, the ideal of chivalry, the supreme object of love and the centre of the home.

And yet, like great awkward schoolboys, white men acknowledge this with reluctance. "The grey mare the better horse" is a confession of pusillanimity; the man is ashamed to admit the fact to his fellow men in face of the Hebraic traditions of the Church. According to the Church's marriage service, while he is to love and cherish the woman, she had a third duty towards him, "to obey," and has also to substitute for his second duty "to honour" him. Who in Great Britain ever heard of a married woman obeying her husband? With mere obedience love must cease, and why should the husband be the sole recipient in the family, of honour? The mystery can only be explained by referring the formula back to its Oriental origin, and going on our

Norse path to the love and honour of the centre of the home—the white woman.

The incorporation of Asiatic traditions with Christian doctrine by the Council of Trent, has proved an economic misfit in every department of the life of the Norse races. In no department of white life have the results proved more deplorable for the individual and more ruinous for the nation than in the relations of white men to white women, affecting the comparative freedom and standing of women.

The ancient Norse ideal of the position of woman, individually and socially, was very high—even exalted. The modern nation in which this ideal is most fully developed, whose ideas of the status of women are most free from mediæval superstition, and therefore most truly Norse, is the American of English speech, the United States of America. So great is the freedom, so dignified the status, so happy the union of privilege and respect, that the American woman has not yet felt the occasion for political emancipation. Two or three causes exist for the difference of the United States from the corresponding European countries in advancement towards the higher ideal. The first is the comparative insignificance of the influence of mediæval and Asiatic superstition in America, and a second is the immanence of the black peril in their midst. An additional stimulus to the recognition of the true status of women and the development of domestic life has been the bounteous plenitude of the natural resources of the United States, and their rapid development under the hand of intelligent labour. Freedom from the depressing influence of carking care has given scope to the gentlemanly instincts of the Norse nature.

The false economic basis of European society throughout the Christian ages has pressed most heavily upon the lot of women. The unit of society has always been taken by Church and State as the individual. Rebellion against this false basis of legislation has led the Socialist to select another unit equally misleading and even more disastrous in its aims—the Community. Man is not constituted by nature to follow the chase after wealth

either as a solitary individual or in a yelping pack. "It is not good for man to be alone," and the remedy for loneliness is not the unsympathetic multitude, but the charming helpmate. The true unit of society is the family. Any departure in law and order from this basis is essentially hurtful to the individual and the State. The State must legislate and administer solely for the good of the family; for the building up of the family and its preservation are the life of the State.

The Council of Trent and their ecclesiastical successors, in adopting the laws of Moses as the moral code of life, overlooked the most important clause of the code; just as the Hebrew State missed the weightier matters of their law and came to national ruin in consequence. In the settlement of Canaan by the Israelites the allotments of land were distinctly made to each family, of which the then existing individual was recognised as merely the temporary representative. At the end of each fifty years, in the year of Jubilee, all land alienated from the family by the individual in temporary possession reverted automatically to that family. The law was more honoured in the breach than the observance. The Jubilee soon became an ecclesiastical ceremony without agrarian significance. Hebrew reform, even when conducted by the prophets, became purely iconoclastic, with no renovating influence upon either family life or national constitution. The prophet, like his Christian successors, preached an individual repentance from spiritual sins as a road to the individual salvation. With all this corruption of the Mosaic law, the family suffered and the woman went under.

The status of women in the Hebrew republic and kingdom was at the lowest level it has ever reached in a literary race. The *raison d'être* of polygamy lies in the inferiority of women. The essential social setting of the custom is the individualistic basis of the unlimited accumulation of proprietary rights in land and all natural resources. The Mosaic law settled the land of Palestine in small allotments, which were made legally inalienable from the families. By the time of Solomon the law had been completely over-ridden by judge-made

precedents, so that Solomon himself was so great a proprietor that he was in a position to pay Hiram, King of Tyre, in return for ships, cedars, men and gold, with twenty cities in the land of Galilee. The cities, on inspection, did not please Hiram, who dubbed them "the land of Cabul" to signify his disapproval. But the list of the cities built by King Solomon, and of the peoples he enslaved, indicates that he was probably one of the largest proprietors of real estate that ever lived.

Now, "Solomon had seven hundred wives, princesses, and three hundred concubines." He had originally married the Crown Princess of Egypt, whose establishment must have proved sufficiently expensive for the means of any ordinary monarch. His father-in-law, Pharaoh, had done things handsomely in the way of wedding presents. We read: "For Pharaoh, King of Egypt, had gone up and taken Gezer, and burnt it with fire, and slain the Canaanites that dwelt in the city, and given it for a present unto his daughter, Solomon's wife." The happy princess who had this dainty dish set before her may have been for the moment sole consort to the wisest man, but before the end of this glorious reign 699 coadjutrices, with 300 assistants, shared the queenly honours. The latest confections from Paris not being so far available, their munificent husband built them each a private chapel, beginning with a temple of Apis with graven images of live stock for the Egyptian royalty. It was after this stage, according to the record, that sin began. If Solomon had had the sense to stay at home while his wives went to church, all would have been well. But no! The wisest man stoops to folly now and then, to please his wives. He *would* go in turn with each and bow down to her particular graven image, with the calamitous results alleged—the splitting up of the great nation between Rehoboam and Jeroboam, and the ultimate dispersion of ten-twelfths of the Israelites, to be utterly lost among alien races for all time.

We can hardly assume that Solomon was singular in his plurality of wives or his accumulation of real estate. The great bulk of the Israelites entered the service of the State, the labour of the country being done by the

descendants of the conquered races of Palestine. As civil and military servants of the king this great landless proletariat were satisfied with payment of salaries, leaving the proprietorship of land and houses in the hands of a comparatively small number of great noblemen. Polygamy prevailed in high society, and the great families were really great numerically. The agrarian laws of Moses and the status of women and the family were reduced equally to abnegation. The salvation of the Jews was only accomplished by the Babylonish captivity.

Seventy years of the simple life among a highly civilised and literary people evolved, from the *haut noblesse* and official classes of the pre-captivity Israelites, a people advanced beyond recognition in moral and mental status. Completely debarred for two generations from any department of public life or government and from military organisation, the Jews of active intellect developed literary, poetic, and musical faculties of the highest order. The most common literary fraud of ancient times and churches ascribed the authorship of much of the Babylonish literature to the already mythical heroes of the Israelites, Solomon and David. But the really important development of the captivity to Jewish national life was the re-evolution of the monogamous family and the improvement of the status of women to practical equality with men. The abolition of Israelitish politics and militarism had reduced the haughty polygamous autocrat from being cock-o'-the-walk to the position of an industrious bread-winner, glad to get home to tea (or whatever stood for it) at night. The sole object of existence to make a living for his wife and family, his only politics their pleasure and enjoyment, his wife became queen, his daughters the incarnation of purity and love. Every instinct of loyalty and pride of the most aristocratic race of ancient times became centred in the home and the family.

The literature of the captivity and the succeeding period down to the times of Isaiah is the only selection of the Jewish books which makes the assimilation of Jewish ethics practicable for the mind of the Norse races.

The lamentations, jeremiads, and denunciations of the minor prophets have only appealed to the sympathies of fanatical sections of Western nations under the stress of persecution by political and military oppressors. Home life has no place in it, and it suits only decadent and hopeless people. Then came an absolute blank of four centuries, during which, of all that was written by the Hebraic race, nothing fitting Western life or thought survives. The traditions of the fathers were politics of a peculiarly parochial kind. The dominance of the male took on a moral and religious cast that enslaved the female and the family more hopelessly than the subsequent dogma and superstition of the Romish Church. The end of that barren era of retrogression came with the inception of Christianity and the destruction by Titus.

The rise of individualism, of the purely selfish man whose family is covered by his hat, whose family ties when undertaken at all are assumed mainly with a view to personal aggrandisement, may be seen round the shores of the teeming Mediterranean during this period of the world's history. Oversea communication became easy and tempting to the unencumbered adventurer. The *Pax R.* was of that cosmopolitan compass which makes it easy for the seafaring man to find a wife at every port. The rise of each of the great nations in turn—the Phœnicians, the Greeks, the Romans, the Carthaginians—was due to the simple life, the purity of the family, the respect and freedom of women. Each development in turn succumbed to the corrupting influences of slavery, the degradation of women, the destruction of the middle-class family, and the development of intense personal selfishness in men. Christianity came to the rescue, but unfortunately germinating for many centuries in soil stinking with the corruption of the Mediterranean races, its only panacea for the rank individualism of the ancients was an impracticable communism joined with a theory of personal salvation more intensely individualistic than commercialism.

Women were thrust down to a lower level in the Roman Catholic Church than they had ever reached in the Jewish. Not only were they refused any rank or office

in the Christian Church, they were only tolerated within the sacred edifices if closely veiled, separate from man, whispering the confession of their sins to a man whose identity was carefully concealed. Their sweet voices were not allowed to be raised in worship to voice their prayer or praise. Their very existence was held up to men as the incarnation of deadly sin, and the entire hierarchy was absolutely prohibited from marriage and family life as an unholy thing. Every woman was carefully taught from infancy that the ideal life for her was to take the veil, to consecrate her life to the service of God by retiring into a living tomb and denying every instinct and faculty made peculiarly hers by the Creator.

For a thousand years the rich countries of Europe, more favoured by nature than any tropical clime, were practically depopulated by this despicable ecclesiastical dogma. The canonisation as a blessed virgin of a respectable married woman who had led a blameless and useful life, giving birth to a large family of children; the death by fire at the stake of every woman who dared to use the highest of her intellectual faculties for her own redemption or the good of others, as a heretic or a witch; and the absolute prohibition of divorce, no matter how dissolute, brutal, or unchaste a husband became, were gigantic evils introduced and enforced by the Catholic hierarchy. Only one of these evils has yet been suppressed. Burning at the stake is reserved for the terrorising of niggers from attacking white women.

The first of these evils in the Catholic Church, the canonisation of the "holy mother of God," is looked upon generally by Protestants as a pitiful, though rather irreverent, triviality. Owing to the chivalric nature of the Norse races, however, the results of this figment of the Latin ecclesiastic were extremely mischievous. The whole current of loyal and chivalrous feeling for woman was turned aside from its natural channel and diverted to an idealised picture or a wooden image, often endowed by popular superstition and the connivance of the clergy with impossible miraculous virtues. Nothing was left of this natural instinct in the Norse man for the benefit

of the real woman and the consecration of family life. The treatment of European women during the Middle Ages, in all classes of society, was coarse and brutal. An inspection of the implements of torture and punishment in the prison hall at The Hague, whipping posts for women worn hollow by thousands of writhing bodies, branks of steel, racks, and other horrors of which the major share was borne by poor shrinking women martyrs to a brutal environment, is almost the sole remaining evidence of the state of cruelty and brutal lust engendered by the degrading superstition. Occasional glimpses of domestic life are obtained from English history. Pepys, the famous diarist, beat his wife with results satisfactory to himself, but was much annoyed because the boy next door saw him in the act of kicking the cookmaid. Punishments for the lightest offences against the law were meted out to women less than a century ago of a ferocity truly appalling. The stamp left by the elimination of all respect for real womanhood owing to the adoration of a spurious ideal, remained in Protestant countries for centuries after the ideal had been removed.

The most real and persistent cause of suffering and degradation to women is the state of the law of divorce. In Catholic countries there is still no divorce. But Protestant countries are very little better in their treatment of women. The clergy still stand aloof and condemn the innocent victim of man's brutality for her very misfortune and suffering. They refuse her all the sacraments of the Church, to marry her again, and if they dared would refuse her dead body burial in a public cemetery. They refuse to allow Parliament to sanction divorce in place of a ridiculous judicial separation. The very newspapers are still so hidebound in ecclesiastical superstition as to say in their leading articles that there are three parties to satisfy in reforming the law of divorce—the individual, the State, and the Church; and that it will be easy to satisfy the first two, but impossible to satisfy the Church; therefore despair. Divorce is generally a relief to a woman from the most intolerable burden that can embitter life—a worthless, vicious, brutal, or unfaithful husband. In Asiatic

countries such a thing, such a case, as a wife seeking relief from a distasteful life by divorce is unheard of. If a man found grave reason for suspecting that he had been robbed of marital rights, all he had to do, in the days when the New Testament was compiled, was "to give her a writing of divorcement," probably holograph, that did not cost him sixpence. This arbitrary power of the Jewish man over the unfortunate Jewish woman has been made the occasion for applying the text "whom God hath joined let no man put asunder" not merely to the "man" meant, but to all the unfortunate English women suffering from brutal husbands.

The institution of the family must suffer far more from the forcible retention of the forms of married life after they are robbed of the spirit of love than it can possibly endure under a natural dissolution of the moribund tie. The misery of children who are the daily witnesses of quarrelling and suffering on the part of their parents, or of the daily neglect of a beloved mother suffering in silence, is perhaps more keen and poignant than that of any other unfortunates on earth. A permanent separation by divorce will enable the family to reconstitute itself as it naturally would in case of a death, and nature is kind in easing the smart of mental affliction in course of time, as it heals a physical hurt. But to keep the weapon that made the wound still rankling in the sore is no way contributory to healing.

A sensible law of divorce would unquestionably elevate the status of white women, and conserve the welfare of the family. It would in no way affect the right-thinking and well-doing husband, but it would give pause to the selfish villain who might otherwise wreck the peace of his innocent household by an unrestrained pursuit of guilty pleasure. Not 1 per cent. of the cases of separation are caused by ill-doing on the part of the woman, in all cases she bears the whole brunt of the suffering, yet the laws of marriage and divorce, being made and administered by man, are naturally moulded entirely for his own dominance and satisfaction. If for no other purpose than the amend-

ment of these laws, it is high time that women represented themselves in Parliament, and that they took their places also in the Juries and on the Bench for the trial of parties and the administration of justice.

Although the individualism fostered by the Church's "scheme of salvation" disapproves of polygamy and in no sense can be said to run to seed, the individualistic commercial and agrarian codes have proved more destructive of family life and the honour and respect of women than irreligious priestcraft itself. The unlimited accumulation of property in individual hands, for ages fostered by feudal law, was suddenly erected into a gigantic system by the development of steam power, the factory system with improvements of manufacturing machinery, railways, and a thousand creations for wealth production during last century. Instead of the additional horse-power made available for doing useful work relieving the labourer of a single hour's exertion, the whole of the additional wealth created by steam-power and other improvements has gone to enrich the capitalist and provide huge armaments for the governing caste. It is maintained by the apologists for the capitalists and ruling castes, who are many and able, that the general standards of pay and comfort are higher, education free, hygiene attended to, and that the working-class position has therefore considerably improved during the century of progress. All improvement of the working-class position has been effected by their own efforts at their own expense. The so-called "free" education is paid for out of municipal rates levied upon factories and households supported entirely by labour. Working class households themselves are only enabled to meet the payment of rates by the joint proceeds of the labour of the male and female members of the family. Where the family is broken up by the premature departure of sons and daughters, the household degenerates to the standard of non-ratepaying or is pauperised.

The degradation of the United Kingdom of Great Britain and Ireland by female out-labour has been carried far on towards national ruin. In textile factories last year's statistics show $62\frac{3}{4}$ per cent. of 1,026,378

hands to be females. 58½ per cent. of 655,912 employés in workshops were females. In public laundries 90 per cent. of the workers were females, in addition to hundreds of thousands of women going out washing. Non-textile factories had 604,424 female workers. These figures take no account of the enormous numbers of female workers and attendants in shops, cafés, bars, offices, schools, private education, secretaryships, and other vocations than domestic employment or the family life.

Female labour, grossly underpaid, has been the trump card played by the individualist against the efforts of the trade union to maintain a fair rate of wages and reasonable conditions of employment. Assisted by Free Trade with pauper-labour countries, and the free admission of pauper aliens to this country, the enslavement of white women has been entirely successful in building up an individualistic State, 95 per cent. of its population practically paupers without rates or responsibility. The Empire is rapidly degenerating to a black race, 86 per cent. being already black, under a *régime* that fosters the black races and penalises or prohibits the marriage of the white woman.

The Englishman is actually clamouring for the State feeding of his children. Surely the iron of the individualists' fetters has entered into his soul. Would not the gradual withdrawal of female out-labour from an overburdened competitive market, combined with judicious protection from the competition of pauper labour by aliens, raise the standard of wages for men to a level sufficient for the support of their families? To bespeak outside intervention in the feeding of his children when he would not tolerate it for his dog, indicates a depth of degradation beyond which it should be impossible for a sober man to sink. Set the wife free from degrading labour (and every woman should be a wife) and the children will not only be properly fed but fostered with a loving mother's care.

By the census of 1901, out of 16¾ million females in England and Wales, 7 millions were married. Of the

remaining $9\frac{3}{4}$ millions probably half the number were adult women, forced to go out into factories, shops, &c., to earn their livelihood and lower the price of men's labour. A corresponding number of men worked for a bare living wage, living as homeless helots. Many of these men emigrate alone, lost for ever to the women of their country as possible husbands. The balance of outward emigration in the year 1906 was 327,572, and 63.6 per cent of this number went to the United States of America and other foreign countries.

With a territory of eight million square miles, nearly one-fifth of the habitable globe, and a population of 7 white and 43 black people to the square mile, it might have been looked for in the supreme rulers of the country to take a little interest in the migration and redistribution of the people. The migration of black labour is everywhere subsidised and encouraged by the British Government, but "information" is all that is offered to the white emigrant. The information is chiefly of a deterrent character so far as regards British Colonies, with the natural result that the emigrant's attention is directed to a foreign country. The United States of America very properly defends itself by stringent regulation and inspection at the ports of entry from the admission of pauper or unfit immigrants. The pick of the men leaving England, with sufficient capital for a practical start in life, enter the United States.

Now that the Dominions and the Commonwealth are waking up to the economic advantages of increased white population, and offer assisted passages and free homesteads, it would not be unheard-of generosity for the British Central Government to make sufficient provision for the settlement of its white children on the waste lands of the Empire, in the shape of tools, seed, and maintenance for the first year at least, on condition that these settlers (emigrants is a term that should be banished from the English language) should be married men and take their wives with them. No greater inducement could be given for settlement within the Empire, and the modern movement throughout His Majesty's dominions for closer settlement and closer

union for defence would obtain practical expression and fulfilment.

The movement throughout the last century of the women of England towards out-door employment was a noble response to the dastardly individualism and neglect on the part of the men. Individualism and the unlimited amassing of wealth by the individual had in Oriental races invariably developed polygamy in the domestic arrangements. A worse fate lay in store for the white woman if she refrained from putting her hand to the man's plough. Her natural modesty and nobility of character came to the rescue, and proved triumphantly that no career in art, science, or commerce is too high for her attainment. The credit for her achievements is entirely hers, the disgrace of driving her out from hearth and home lies wholly on the men. The loss is fortunately distributed in a similar way. The man suffers more than the woman by the lack of wife and home, and the cowardly *laissez faire* Government brings upon the State the greatest loss of all.

The sudden and unlooked for development of wealth during the nineteenth century entirely from the inventions and discoveries of the Norse races, put a magnificent opportunity and urgent necessity in their way for the introduction of a fair and efficient economic administration. The system of individualism patched up by their rulers, from the ethics of the Jews, Greeks, and Romans, upon the ruins of the feudal organisation, has only succeeded in evolving a group of multi-millionaires, an immense propertyless proletariat, and 23 paupers in every thousand of the white population of England. The white women have been driven by a remorseless economic code to organise an industrial formation of their own in competition with men, the family basis has collapsed under the stress of industrial competition between women and men, and even the provision of food for their children has been found too great a burden for the white man to bear.

The disintegrating effects of *laissez faire* policy upon the family and the nation must be stopped. A constructive government is needed more than ever by a

neglected nation, to reconstruct the family organisation which the accretion of wealth ought to have fostered instead of injuring. The financial burdens of the State must be removed from the shoulders of the rate-paying householder, and placed uniformly upon the whole nation by import duties protecting the industry and commerce of the people. Foreigners should not get an ounce of the nation's coal without paying well for the privilege. The closer settlement of the land in England as well as throughout the Empire should be the prime care of the governments, by the introduction of scientific irrigation and the settlement of the land on families, inalienable by individuals. Industrial legislation must be introduced for the administration of capital applied to factories, so that provision for fluctuations of trade shall be made for the worker equally with the shareholder, and white women gradually relieved from the stress of out-labour.

These reforms cannot be expected from a government formed exclusively of men. The men of the nineteenth century had more than a fair innings and can show nothing better than a duck's egg. It is more than fitting that the white woman should now be admitted to political power on an equal electoral and representative basis with men. The greatest sovereign that ever reigned over the British Empire in the past was a woman, Victoria of gracious memory. The greatest Prime Minister may yet belong to the gentler sex. Greater work in legislation remains to be done than has ever been attempted by the coarser hand of man. The family ties of the white man and the white woman have to be renovated on a basis of love and assured plenty, in place of the ties of cold legality and sacerdotalism; the domestic hearth protected from the raids of minions of a dastardly law of restraint; and wedded life itself set free from the clammy grasp of the ecclesiastic, who wrests his texts to the destruction of family peace and wifely honour.

The white man has shown himself utterly helpless in face of the black peril. He lets it alone, as he has left the mediæval economic system of his ancestors to work

his social ruin out of the accretion of modern wealth. The white woman has stepped into the breach, and by self-sacrificing re-organisation of his industrial system saved him from dishonour if not from poverty. His salvation from a black world can only be won by the white woman. Let him resign for the crisis the political power he has shown himself too feeble to wield for his own good, into the hands of his wiser helpmate. The white woman will rise in the might of her honour and purity to a moral elevation undreamt of by politician or prophet, and prove herself the true apotheosis of humanity.

CHAPTER XVII.

A PLEA FOR THE FAMILY.

Population Increase—Influence of Public Works—Nature of Public Works—Depression—Influence of Irrigation—Impediment of Land Laws—Fear of Distraint—Distraint for Commercial Debts—Protection from Distraint—Rent—Distraint for Rates—Results of Distraint—Credit—Origin of Rating—Rating for Public Works—Extinction of the Family—Race Degeneracy—The Colonies—Preference of Indirect Taxation—Incidence of Indirect Taxes—Savings—Government Duty.

THE birth-rate in the white world is diminishing with the development of wealth. The wealthiest countries have the lowest birth-rate, except in cases like the United States of America, where a large influx of foreign population brings with it the habit of procreation. But even there each successive generation becomes less prolific, and British Colonies show a similar tendency in the growth of population. But it is in the old world that statistics convey the most alarming lesson. The wealthiest country in the world is France, and here the birth-rate has at last, for the first time in the world's history, shown an actual fall below the death-rate during the same year.

As a rule the population of an average country increases at the rate of 1 per cent. per annum, so long as it is not checked by exceptionally unhealthy conditions or by warfare. The population of England increased during the fifteen years from 1870 to 1885 at the rate of 1·14 per cent. per annum; and those years were preceded by twenty years showing a rate of increase of 1·05 per cent. per annum. During these years, however, the population of Ireland was diminishing by

emigration at a very rapid rate, so that the increase of population of the British Isles as a whole was far below the normal rate. The causes of the depopulation of Ireland, however, have been purely political and agrarian, and the last year or two shows a distinct tendency to increase. Ireland has always been an extremely healthy country, a country of beautiful women, and the Irish themselves a vigorous and prolific stock.

The wealthiest nations are those where the country has the greatest population to the square mile. The wealthiest nation is invariably the people having the highest average individual income or earnings. Savings or accumulated wealth are deceptive as a standard, for the very fact of hoarding paralyses wealth, and the present depression of trade arises from a general reluctance to invest capital in any fructifying industry. The most valuable investment of the capital of any country consists in the construction of public works, providing always that the term public works applies to all the implements of industry and commerce, everything of a structural nature on shore or afloat, except ecclesiastical buildings. In studying the economic aspect of history, it is invariably found that the increase of the density of population takes place in the direct ratio of the increase of public works.

During the four centuries immediately after the Norman conquest the population of England was stationary at less than three millions. The birth-rate was high and there was no emigration, but the death-rate was sufficient to maintain the standard. There were no public works. Cathedrals, monastic buildings, and chapels abounded; in no country except Spain, and at no time in the world's history, was there such a plethora of ecclesiastical buildings, and at the end of that period the country was not the richer by a single soul.

The consolidation of the English States into a single kingdom with an unquestioned right to the government, the destruction of ecclesiastical political power and property by the eighth Henry, and the awakening of



the English people to the value of sea power, public works and commerce, led to the rise at a steadily increasing rate of the capacity of the country for population, and expansion kept pace with public works.

There is a great variety in the nature of public works, and also in the means by which they are carried out. Starting in the time of Henry the Eighth, shipbuilding and the creation of sea power and foreign commerce engaged the attention of the manhood of England for more than a century after. Internal improvement was comparatively insignificant, owing to military and ecclesiastical misrule and the superstition of the people. Then roads and canals, with the improvement of the internal commerce of the country, which led to the development of the factory system and the building up of an immense manufacturing state, was succeeded by the introduction of railways, steam power installations, scientific agriculture, and general hygienic improvement. Private enterprise, the rise of the company system of organisation and the municipalisation of certain kinds of public works, all did their quota of improvement; and with each, the circulation of capital and increase of employment tended to increase of population. The School Board Act of 1872, by capitalising rates for a considerable number of years in advance, and the simultaneous erection of schools all over the country, caused a boom in the building trades which simulated the sudden increase of wealth and earning power, causing the notable rise in the rate of increase of population during the fifteen years quoted. Notwithstanding their similarity of appearance, schools, in relation to the increase of population, are essentially public works of a very high order of utility, where ecclesiastical buildings and feudal mansions or baronial castles are absolutely lacking in economic purpose.

The period of depression now beginning is coincident with a lull in the undertaking of public works. That pause in the inception of new enterprises, and the expenditure of capital in great remunerative undertakings, is attributed by many to the waning of political confidence. Social reform undertaken by extremists

certainly exercises a widely deterrent influence upon those having capital to invest. But if the field of opportunity to work appears to be fully occupied, or, what comes to the same thing, if the avenues for further improvement and development are not perceived, no order of legislation can make or mar the prosperity of a nation. The settlement of unoccupied agricultural lands, and the opening of mines in the Colonies and the Americas have been for centuries a great source of wealth and increase of population to European countries, notwithstanding the drain of emigration. The closure of these avenues for development by the appropriation of the remaining arable lands and workable minerals by individuals in the near future is, no doubt, one of the leading sources of the approaching stagnation.

The next great field for public works lies undoubtedly in the scientific irrigation of the arid lands of the world. More than half the area of arable land on the earth's surface, twenty million square miles in extent, is arid desert, within the sub-tropical zones of finest climate, and only awaits irrigation to become capable of sustaining in absolute comfort a population exceeding the existing population of the world by hundreds of times. There is no more than 100,000 square miles or $\frac{1}{200}$ th of this area so far irrigated, on very imperfect methods, wasteful alike of water and labour; but in every case the land attains to a much higher productive value than land naturally watered by rainfall. Every civilised government, except the English, is alive to the importance of the subject, and in it they find the sole possibility of the closer settlement of their countries. Half the area of England, consisting of the richest cretaceous soil in the world, is hopelessly arid from its permeable nature, and, with water regularly applied under pressure from overhead spraying apparatus, would grow wheat that would take the place of all the imports from America. This can only be done, however, by the Government undertaking public works of a magnitude hitherto unprecedented even in this country, but the task will have to be faced sooner or later as the only way to obtain closer settlement

with the people back to the land, and to maintain the rate of increase of population essential to national existence.

In France the same problems present themselves in a more accentuated form. Much of the land is arid, though highly fertile when water is applied. The government has done a little irrigation in Algeria, but in European France this public work has been left entirely to the associations of private landed proprietors. Of course, what militates against extensive irrigation development both in France and England is the absurd proprietary system of land laws. These present an initial barrier to State interference which it will take several generations in succession to overcome. But the maintenance of the natural rate of increase of population by the maintenance of the birth-rate considerably over the death-rate would keep an ever-growing pressure upon the progressive politician for the introduction of land law reform and pressure irrigation.

The immediate cause of the lowering birth-rate, both in France and England, is the fear of poverty and the law of distraint. We may call it the incidence of taxation, but that term does not express it correctly, as the amount of taxation is less in the present day in proportion to the wealth of nation or individual than at any previous time. It is the fear of the penalty in case of temporary inability to pay the tax that in every case restrains the householder from assuming the cares and responsibilities of a family, and impels him to deny himself its pleasures. It appears on the face of it a small matter, the fear of distraint, to exercise such an enormous power as to compel the suicide of a great nation. But an examination into the detestable legal system in the hideous details of its working will show clearly its deadly effect, not only in slowly killing out the national population, but in poisoning the very springs of its being, eliminating the best and encouraging the propagation of the worst stocks of the race.

There are three classes in which debts at common law may be ranked, in view of the power of distraint,

namely, commercial debts, rent, and rates and taxes. In England the householder can, if well advised, provide some protection against the fear of distrain for the first class, commercial debts, under the Married Women's Property Act, by a clear marriage settlement, made prior to marriage, of all the household furniture and effects upon his intended wife, provided he himself is solvent at the time. In case such a settlement had not been made, an absolute bill of sale may be granted by him to his wife in return for payment made by her from her own property. The bill of sale must, in order to be legally valid, be registered within a certain period from its date, and all the transactions must be carried out before witnesses, the money being counted out before them in sovereigns, and the wife must be prepared to prove in the event of an action of interpleader that the money paid was originally her own and did not come directly or indirectly from her husband.

With all these precautions fully satisfied, it is questionable whether they would prove sufficient to protect the household from distrain at the dictum of one of the petty suburban county or police court judges. These courts in England have degenerated in the absence of serious crime or a sufficient crop of "drunks," into bureaux for the collection of small debts by distrain. Their detestation of anything interfering with the routine of their duties is apt to lead to an arbitrary over-riding of the law on the plea that "the wife shared in the benefit of the goods." In case of an appeal to a higher Court reversing their decision (and an appeal is naturally rare, because expensive), no well-merited punishment can be awarded to the magistrate, his decision being viewed as an error of judgment. An interpleader should, therefore, always be taken before the High Court. The threat of it is usually enough to satisfy the most clamant dun. In case of bankruptcy, the settlement or bill of sale is an absolute protection to the family.

From the national point of view every householder should be encouraged to take these legal measures for the protection of the family in his charge from destruction.

Unfortunately, the universal attitude of the executive departments of the Government is one of grudging compliance with "vicious Acts of Parliament which violate the principles of Roman law." The curious immobility of English law against reform by Act of Parliament is well illustrated by the adhesion of the other two classes of debts to the Roman, or more correctly Norman, tradition, in the teeth of all Acts of Parliament. The landlord or house-owner may "poind" in Scotland or "seize" in England any or all of the goods or chattels found in the house and sell them at auction in satisfaction of his rent. No respectable landlord ever does such a thing now. It appears to pay the owner of numerous houses or city properties to settle quietly without attracting the attention of the rest of the tenants by such an exposure as the distraint of one family. The position of the house proprietor is not so happy as in days of less competition and more defective communications, and it therefore pays him to have a good reputation with his tenants. As a rule the landlord of the best type never levies a distress nor loses a rent.

Distraint may be guarded against in the first two classes of debts, but the third, the rates and taxes, is absolutely irremediable. A system of illegal evasion has been built up by the bureaucrats of this and all other European countries, by which they can forcibly enter any man's house and levy distress to the ruin of the family, and no remedy is possible either for the immediate sufferers or for the nation they are paid to serve. Herein consists the suicide of the nation, for it is killed in detail by the officials employed by itself. For one distraint actually perpetrated there are ten thousand families live in daily fear of distress. The greater proportion of the heads of families in England and on the Continents are landless and unpropertied. They depend upon employment more or less uncertain in duration. The maintenance of the family may be carried on during a temporary cessation of employment by any number of makeshifts, while the household is kept together in the shelter of the furnished home. Living can be cut down

by watchful and ingenious economies, but a blue paper containing a diatribe couched in the most insolent and domineering language shakes the house from rooftop to cellar. And all this literary thunder is addressed to a man who represents a family for the moment in much greater straits than the paupers for whom the sums demanded are to provide. (See Appendix B.)

The first result of carrying out the distraint is that the landlord is obliged to put in his claim for any arrears of rent. The whole of the furniture must at once be sacrificed for, at the most, one-sixth of its cost and value. If no friend comes to the rescue, or employment is not immediately obtained with payment of salary or wages in advance, the man and his family at once become a charge upon the very rates to which they have been sacrificed. Was ever any process so senseless devised by the crack-brained witlessness of man. The marvellous element in the whole tragedy is that so-called elected guardians can be found to administer such a rotten system of law.

The result of the process of distraint is not merely the ruin of one home in ten thousand. The results to the neighbours of the victim are an additional charge upon the rates of the parish, and an object lesson on the folly of indulging in the luxury of a family. So serious is the moral impression on the neighbourhood that, where nothing can be done directly for the help of the victims, no landlord who looks after his own property will willingly incur the odium and loss of tenants which inevitably ensues, and the small shopkeeper who is foolish enough to distrain for his accounts, however much in arrears, cannot possibly continue his existence in the face of the large cash stores, to which his customers at once betake themselves with their money. The remedy is clear to the minds of all: take no credit, pay cash for everything as you go, be no man's slave or victim.

In America the cash system prevails solely in all retail business. The large store system of distribution does not allow of any other. Furniture is the only exception even in this country, for encyclopædias may very well be classed as furniture. Easy payments with

concurrent use are only practicable in dealing with goods liable to seizure or distraint. The prudent householder therefore will keep out of it, and can only be let in to such a risk by the growth of cash payments for perishable goods. The proud fabric of credit which accommodates the commerce of civilisation is the monopoly of wholesale business, the essential of oversea trade. If the bills are not met with cash on delivery, that delivery may be withheld at the end of the voyage.

Distraint for rent is naturally qualified by competition among landlords and the improvement of means of communication. But rates and taxes have dragged behind all commercial transactions, and remain the bugbear and terror of humanity.

The rise of modern municipal rating is based upon Poor Law. The original Act of Queen Elizabeth's reign conferred power upon the guardians to rate all kinds of property and proprietors. Not only the householder was liable for poor's rates, but "the man whose family was covered by his hat" had to pay upon property of whatever nature. The proprietor of the house was assessed equally with the occupier. The man in the street if he drove a horse and cart, the bargee if he owned his barge, the warehouseman if he owned goods, the stockbroker if he owned shares, everyone who had any property that required the protection of law, had to contribute to the common burdens of the city or country. Administration and political influence gradually narrowed down the basis of rating. In Scotland the proprietor has still a share of the rates saddled upon him for direct payment, and the owner of the house he occupies has the satisfaction of paying one-half his rates as owner. In England the proprietor has long since ceased to pay rates as such, and has even got the immediate payment of his income tax shunted on to his tenants for the convenience of a paternal government in seizing the goods of the unlucky household for the landlord's personal liability.

Rates had long degenerated to their present basis of a recurrent redemption of the furniture of the family, when the necessity arose of rating for municipal public works.

Hygienic improvements, for which surely the house proprietor in the name of common-sense was wholly responsible, were in England levied upon the occupiers only, in Scotland wholly or partially on the proprietors. Water, gas, electric lighting, streets, roads, parks, "free" libraries, tramways, police, schools, every purpose for which municipal organisation and finance was required, were huddled together and heaped up on the shoulders of the householder, because the poor-rate had found a ready means of enforcement by distraining the possessions of the family. The only protection of the family lies in its ceasing to be. As municipal burdens increase the family diminishes, and the politician stupidly wonders why. He denies that there is any serious fall in the rate of increase in England. "Statistics may be cited showing a preponderance of births over deaths in the British Isles, the balance on the other side is peculiar to France. It is a moral, not a financial question at all." If it is pointed out to him that morality of that sort was purely a figment of the ecclesiastical brain, which has always disapproved of the Creator's methods, he merely shakes his head at the half-crazy atheist and goes his way satisfied with being the man in possession.

No doubt the process of the extinction of the family is slower in England than in France. The cause of that phenomenon is not, however, entirely favourable to England. There is a worse fate than extinction for a proud nation, that is degeneracy. The middle-class family in the 'fifties often consisted of seven children in England, and eight in Scotland. The lower class families, although even more prolific in generation, seldom, in the defective hygienic conditions of the day, succeeded in rearing half the number. The men who created the Indian Empire, who founded Britain's colonial greatness beyond the seas, who fought the Crimean War, and retained a United South Africa, were the middle-class children of last century. It is the middle-class family that is fast verging on extinction. The lower-class families remain as prolific as ever. No foreboding as to payment of rates touches the irresponsible brain of the labourer who fitfully earns 20s. per

week. His wife goes out washing or charring, and the numerous family make shift between free schools, charitable breakfasts, and delightful play-centres, to put in a glorious and healthful time amid improved hygienic surroundings unknown to the middle class of former generations. The racial features remain unchanged. The contentment with the social arrangements which entail the employment of the female members of the family on outside work is spreading upward with the predominance of the lower class in society. Mere education in schools has never been found to instil the racial *morale* of chivalric feeling, nor the higher instincts of humanity. The brute who kicks his wife and thrashes his helpless children will remain a brute however much extraneous learning or money he may acquire. It is the same in every clime. The learned baboo builds upon a foundation of cowardice, bred for thousands of years in the tropical swamps of India, an edifice of the meanest treachery. Men can only be produced in perfection by careful selective breeding, as in the case of all other domesticated animals.

Selection by rating the responsible householder, and distraining the family's goods in case of failure to pay, is showing its effects upon the race. No one can maintain that the average Englishman, the voter of to-day, is the equal in the higher qualities of manhood to his predecessor of fifty or a hundred years ago. You must go to the Colonies for an Englishman. The poor creatures who clamour for an old-age pension or "the right to employment," subsisting meantime on the wife and daughter's laundrying, can hardly be regarded as a bulwark of empire.

At the same time perfection is not to be found in the English Colonies. The English people have unfortunately transplanted the glaring defects of municipal finance and judge-made law to the Colonies, and even the ameliorative influence of a more rational system of land settlement has not entirely freed the settlers from the effects of the middle-class white man's burden. America, Canada, Australia, and South Africa are not

without financial stress and the gradual shrinkage of families which invariably accompanies the fear of distraint. Even the Boer who established himself in patriarchal style with fifteen to twenty sons and daughters, together with sons-in-law and daughters-in-law, and grandchildren to several generations; when brought under British rule and the payment of rates, the fear of the King's writ and distraint moderates the family and brings the patriarchal habit to a close. The Kaffir, with the payment of a nominal hut tax and no furniture, spreads his wealth over a number of wives and increases and multiplies exceedingly under British protection.

The remedy for this cancer, slowly but surely sapping the vital energies of the nation, lies in restoring the spirit of Elizabeth's original law. Let the incidence of taxation be distributed over the whole community, so that the family will no longer be penalised, and freedom will again restore the family spirit. Indirect taxation for municipal purposes, and the collection of income-tax directly from the person in receipt of the income, must be inaugurated by politicians of real constructive ability if the nations are to be saved. The collection of indirect taxes can only be undertaken by the Imperial Government. Local bodies have never succeeded in making customs' imposts endurable. The intimate interference with trade and commerce, the inequality of incidence in different towns, and the enormous multiplication of collecting machinery, absolutely prevent powers for indirect taxation being ever again placed in the hands of petty municipal governing bodies. But since the equivalent grants were first inaugurated by Mr. Gladstone, the Treasury payments in subsidising local governing bodies have increased by leaps and bounds. The old fashioned objection "that it would lead to municipal extravagance" has been proved to be absolutely groundless. Witness the Local Government Board's investigations at East Ham, Poplar, and Mile End. Here the Treasury grants placed the power in the hands of the central government to overhaul the books of the local governing body, and to expose and

punish the terrible mass of corruption engendered by the power of taxation in lower-class bodies. The abolition of rate-paying must be preceded by a constructive Imperial policy of tariff reform for local revenue purposes. The abolition of the law of distraint will follow on the heels of a sensible mode of collecting the revenue required for local purposes.

No responsible householder would grudge the payment of an extra half-penny on his pound of sugar, a shilling or two on a quarter of foreign wheat, or a couple of shillings being paid by his German friends over sea for the coal they are generously allowed from the national cellar. No British hen would cackle her alarm if the newly-landed paid an infinitesimal fraction to the Imperial exchequer; the preservation of the child is of even more importance than the cold storage of an aged egg. A very moderate tariff upon the foreign imports to a country possessed of such a gigantic trade as the British Isles, adjusted judiciously for purposes of local revenue, will not interfere in the very slightest degree with the productive power of the country. Remember, the incidence of this taxation would be spread over a field of contributors a hundred times the extent of the unfortunate households presently plundered with ruthless rapacity. The expenditure at the hands of the local authorities would be watched with lynx-eyed keenness by the Local Government Board.

The abolition of local rate assessors and collectors, registrars, and all the array of the small debt and county court officials, the machinery for distress and distraint, and above all, freedom from dread and worry to the responsible heads of households, ensuing upon these reforms, would prove an enormous source of economy and saving. The cost of collection by tariff would form only a trifling increase upon the expense already incurred on customs by His Majesty's Government, and but a small fraction of the enormous expenditure now incurred by the numerous local boards. "Tariff reform for local revenue purposes" should form an excellent rallying point for a Liberal party, one which might enable them, if they were clever constructive politicians,

to "dish" the Unionists as Disraeli "dished the Whigs."

To go back to first principles, when a man "gives hostages to fortune" and invests a portion of his capital in furniture for the family he founds, the State in its own interest should at once automatically become the trustee of what is really the embodiment of family life. If any portion of the furniture must, in temporary straits, be parted with, then the State should be the only pawnbroker. The interests of children can only be maintained if their property rights in the absolute necessities of life are closely watched by the State. Furniture in a household is the conservator of the family institution. The family is the only naturally sacred institution on earth. It is the finger of the Creator of souls and bodies, the highest development of nature, the former of men, and the only foundation upon which a nation can be built up. Therefore, the first duty of any government is to conserve the home, to protect the rights of the family from every outer evil, to make "the pots in the Lord's house holy," to abolish distraint.

CHAPTER XVIII.

THE LABOUR FAMINE.

Unemployment—Relief Temporary—Underpayment on Relief Works—Profit—Rise of Industries—Wages and Opportunity—Parliamentary Control—Government Control—To Regulate Demand for Labour—Method of “Bears”—Government Acquisition—American Panic—Effects World-wide—Measures of Relief—Inadequacy—Permanent Measures—Irrigation—A Government Operation—Results Predicted—An Instance of Cheap Land.

UNEMPLOYMENT is no mere modern development, although its literature is comparatively new. Wherever the social conditions are such as to divorce labour from opportunity, there the gaunt spectre of unemployment rears its ugly head and raises its voice for revolution. The outlet of literature, if backed up by measures of immediate relief and the promise of social reform, generally relieves the tension for the time without serious consequences. But before the unemployed had found a voice in literature, and while measures of temporary relief and social reform were nobody's business, revolution, invasion, migration and warfare on any pretext were the only remedies for unemployment. Labour famines have been recurrent during all historic time; the usual form of relief works was the predatory raid.

Direct inquiry into a particular case of labour famine may throw little or no light on its origin. It requires consideration of the entire social organisation of labour and capital to arrive at a conclusion as to the cause of temporary unemployment. The wonder is, not that there should be occasional lack of employment in civilised countries, but that in view of the unorganised

relations of capital, labour and markets, combined with a constant succession of labour-saving improvements, there should not be perennial unemployment for a considerable proportion of the working staff of the world.

The cycle of boom and depression in trade which occurs like Indian famines with unfailing continuity, is a natural phenomenon due to insufficient social organisation. Temporary relief works for the English famine are organised, however, not by a business-like government like the Indian staff, but are left to charitable organisations. The spasmodic treatment of unemployment as an occasional and temporary calamity is the worst possible method. The voluntary organisations, backed up with grants from the long-suffering municipal ratepayers by authority of the Local Government Board, assisted by charitable contributions, merely open a number of registry offices for the interchange of labourers between various quarters of the city, and re-open works on one or two relief farms, in the face of a stringency in the application of capital to public works which amounts to a gigantic labour famine. Work is provided for a small proportion of the surplus labourers, more as a test of their willingness to work than as a business-like investment of national resources.

The depressions of 1886 and subsequent years were met partly by cutting down the rates of pay of the labourers to starvation limits. It was taken for granted by municipal rulers that relief works could not possibly be conceived that would yield a remunerative return. The labour of the skilled workman, diverted temporarily to unskilled labour, was not expected to be sufficiently strenuous to realise a fair day's wage. Money was provided from the rates for labour relief through the ordinary municipal channels of expenditure, and no separate accounts kept to show the returns of profit or loss from this particular department of municipal expenditure, except in a few rare instances. Wherever records were properly kept, the accounts showed a considerable saving to the municipal department from the under-payment of the labourers.

In a northern city during the great depression of trade of 1886-7, the municipal council opened relief works at 2½d. per hour, a rate plainly incompatible with the maintenance of any family. The engineer of the Harbour Board of the same city being asked by a town council member of his Board to organise relief works, consented on condition that he should be authorised to pay not less than 3d. The formation of streets upon the harbour property was commenced at a day's notice, and under the direction of experienced foremen, the work completed during the winter realised a saving, against the lowest contractor's rates, of £400. On the re-opening of the subject the following winter, a baillie on the Harbour Board strenuously objected to the harbour revenues being used for any such purpose, "seeing they had been subjected to so heavy a loss on relief works during the previous winter."

Naturally the man whose poverty and lack of opportunity are being exploited under the presumption that he will not work for ordinary rates of pay, will do his best to justify that opinion where he sees no likelihood of redress. The grudging dole of municipal charity is notoriously pauperising in its effect on the recipients; and, if for no other reason, relief works should never be organised on an insufficient or charitable basis. The only possible relief lies in a full measure of employment at full pay, and for this purpose as well as for the prevention of all real loss to the nation, the organisation must have a wider purpose than that of providing temporary relief works; it should deal with the whole field of employment.

The world has arrived at the end of a century and a half of labour-saving inventions. The conditions are novel and unprecedented in history and will repay a short review of the rise and culmination of the present state of affairs.

At the beginning of this period, the manufacturing and agricultural industries of England were comparatively unimproved, labour was organised on a natural family basis, land was sub-divided for the maintenance of families, the factory system had not in any degree

superseded the cottage artisan, and markets were in no sense world-wide, but confined mainly to the country of the producers. The population of the United Kingdom was only seven millions, about one-sixth of the present numbers. Wages were comparatively low, and wage-earning employment scarce. Means of communication were extremely deficient, roads, railways and canal or inland navigation being hardly known, and the pack-horse carrying the goods of the country. The building of the great cities of factories, warehouses and dwelling houses had not been begun, and the public works of hygiene and communications had no existence.

For every labour-saving device in manufactures there was a corresponding advance in public works, in agriculture, in communications and in social development. The oceanic carrying trade and railways kept pace in their development with the factories. Home and foreign markets were opened up automatically by commerce and emigration at a rate of increase equal to that of the production of goods. Instead of the logically correct inference of riotous loom-smashers, that labour-saving devices must take the bread out of their mouths, progress in every field of human industry has enlarged opportunity for the human labour set free from the smaller systems of production and for the rapid increase of population.

A delicate balance exists between production and consumption. The area of markets for produce must be continuously expansive if over-production is not to glut the outlets for the products of human industry. A natural law appears to exist that increasing density of population is generally accompanied by an increase of wealth and higher wages for labour. This is more evident in the case of England than in that of India or Egypt, but agricultural countries have not the expansive market that nations more advanced in manufacturing industries and commerce command. Agricultural expansion, however, appears to be essential to manufacturing and commercial prosperity, and is the necessary supplement to British trade and manufactures. Without the enormous expansion of the

white races in new oversea territory, the commercial progress of the last century would have been impossible. Any check, however temporary, to expansion abroad, must be followed by a corresponding depression of home industries. A lull happening at the same time in the prosecution of public works, especially at home, will accentuate the loss of labour opportunity in the country and culminate as at present in labour famine.

The only national authority which has exercised any control over the automatic inception and execution of public works in the United Kingdom has been the Houses of Parliament. In some ways satisfactory, this system has not been without grave abuses, as the suppression of road locomotion for three-quarters of a century by the railway interest and the abolition of canals; and it has been the most expensive public works department it was possible to contrive. It appears to have come at last to an end of even its very low efficiency. The cost of the railway system of the country was enhanced by three hundred million pounds of Parliamentary expenses. A lease for one hundred years (as in all foreign countries except America) of the property created by Parliamentary powers would have brought the railways by this time within some thirty years of becoming a national property of the greatest value to the country. The control of labour conditions in the hands of the Government from the proprietorship of the railways, the influence upon the trade of the country a judicious non-profit tariff would have exercised, cannot be estimated in value except by contrasting the internal rates for goods and passenger traffic in this country where they are the highest, with those of government-owned railways where they are the lowest. The influence of low rates for rapid transit of goods upon the productive power of a country cannot be appreciated in Britain because all railway rates are on a high scale. If the Government owned even a single main trunk line and ran it on business-like principles (not for non-representative revenue purposes like the Post Office), the contrast with company-owned lines on the traffic commanded by the line would be an

object lesson in practical politics. But it is the perfect solidarity of the railway system in England and America that has saved the company and the stock-broker alive.

Agricultural and public works expansion have always kept pace with improvements in labour-saving appliances and increase of population. It is safe to postulate from history that within the next ten thousand years they will always, if man uses his ordinary business faculties in politics and statesmanship. But the latter condition is not self-evident by any means, it is the lack of ordinary business acumen in rulers that brings periodical labour famines to check population and take the conceit out of men. Every check in recent times has arisen from panic induced by unscrupulous stockbroking and blundering statesmanship. It will be sufficient to illustrate this from the history of the present famine to show how this crisis might have been averted, and also how like crises may be prevented in future.

The cranks who have advocated State formation and ownership of railways and other means of communication in modern times have spoiled their case by their reasons, like the colonial judges whom Lord Mansfield informed that "their judgments were all right, but their reasons were all wrong." The reason invariably urged for the nationalisation of railways is that the Government would no doubt make and work them cheaper than a profit-taking company and give the public the benefit. The reply to this argument of course is that, if cheap, government manipulation would be nasty, and in any case unnecessary. But these arguments are aside from the real issue. The control of both agricultural and public works expansion must be vested solely in the hands of a capable government in order to regulate the demand for labour. No positive regulation of labour is required at the hands of government, the only action necessary is the honest management of land and public works to be obtained from a purely disinterested government department.

The absence of honest government control in America during the creation of modern public works and its continued neglect, have caused the present depression. The rule of the stockbroker, of the Carnegie, the Rockefeller, the Harriman and the multi-millionaire tribe generally, has culminated in the natural result of the destruction of confidence in the minds (or what does duty as minds) of the small investors. It does not require differential railway rates or any other palpably dishonest trick, in the management of lines of communication, to divert the capital of the country into the possession of the few. Monopoly has more secret and efficient means of spoliation of the general public. The oldest and most obvious trick of the Stock Exchange, the selling of bears, where the power is previously secured to pull down values temporarily, requires no addition or variant for success. The indispensable element for success, however, is securing control; and this is the reason why the sole control of public works should be vested in the hands of an honest government department.

While honest, simple-minded Roosevelt caught hold of the ear of the capitalist to make him disgorge a tithe of his gains from illegal monopoly and differential rates, the animal squealed his loudest to divert attention from the real issues. These were the Stock Exchange manipulation of bulls and bears in virtue of the absolute proprietorship control of the steel-works, great manufacturing and producing industries and, above all, the lines of communication. Trade receipts and company dividends are insignificant forms of the wealth of multitis, mere pawns in the game of bull and bear, to tempt investment and create panic. The unthinkable issue to the American brain is apparently the acquirement of State public works, as State property, by the State. It does not appear to occur to him that the money for purchase must necessarily be the money paid. The transaction is so great in figures that it can only be done by a few strokes of the pen. The State credit is the best in the world, better by far than that of either multi-millionaire or small investor. The conversion

of all railway and pipe-line stocks into government securities, in giving dividends greater stability, would insure a clear profit to the government to which it has a perfect right. But the greatest world-benefit from the transaction would be the elimination of this gambling with marked cards which produces labour famines in civilised communities.

The crisis in America last year was the starting point of the present trade depression and labour famine. For several years the small investor had been pouring his little hoards into the shares and banks of financial kings who published glowing statements of unprecedented success of the public works they controlled, paying dividends also that surprised and excited the cupidity of investors. The fruit was ripe and ready for squeezing early last year, the bears duly sold for delivery in autumn, and the market was flooded with bad news. The small investor rushed in hundreds of thousands to realise what he could of his cherished hoard. The State Treasury relieves the tension by timely aid to the banks in order to avert immediate disaster, but not in time to prevent the loss of employment which drove many an incipient American citizen back to his native penury with half his rescued savings. The other moiety remains to swell the multi-millions of the American owner of State property, while the panic and depression spread to the ingenuous Eastern onlookers whose mediæval laws and government systems were exploited by cleverer men.

The crisis in America last year is admitted by Europeans to have started a wave of depression all over the world. In America the mills began to shut down in November. The depression in the textile industries did not touch Lancashire until February, and it was longer in reaching the Continent of Europe. It has now spread to the farthest confines of Asia, reacting with redoubled force upon the impoverished workers of England from the closure of all her markets. Engineering, ship-building, and sea trade are all equally involved. Public works have ceased from the loss of confidence of capital. The bank rate, from 6 or 7 per

cent. last year, has sunk to $2\frac{1}{2}$ per cent., but no money is advanced for any ordinary industrial or trade purpose.

The depression causing labour famine in England can only be relieved by agricultural and public works expansion. This will come automatically in course of time, for the world is wide if politicians are narrow; but, in the meantime, the steed supplying the horse-power is starving on moral lectures and registration. The measures of relief for recurring famines should not only be prompt, but of a permanent nature on the main lines of reform. Agricultural and works expansion, by and for the State, are the only permanent means as well as the most rational temporary expedients for relief.

The first essential in measures of relief for unemployment is that they should be adequate. The mere registration of unemployed in the books of local committees and a central body, with a view to the transfer of unemployed labour from one district to another, where all districts have more unemployed than there is useful labour to absorb, seems, in the face of it, a vain effort to shunt responsibility. In the discussion which ensued on a motion to open the registers of the central and district committees, a doubt was expressed as to the wisdom of opening the registers until some steps had been taken to create work. Notwithstanding the doubt the resolution to open the registers on the 24th September was adopted. One member of the central body could see the possibility of work being found up to the present for 5,000 men.

Last winter, when trade was better, the central body had nearly 50,000 applications for work to deal with. The body found work for 1,506 men on the Hollesley Bay Colony, and for large numbers at Farnbridge, in the public parks, at the Alexandra Palace, and in laying out recreation grounds and other similar works for certain borough councils; while West Ham made special provision on its colony at Ockendon, in Essex. It is felt that this winter there will be necessity for the opening up of much more work of this local character.

The most serious indication of the extent of the want of employment is its prevalence during the best working months of the year. In addition to the out-of-works from the industrial and building trades during the summer, the rural population will furnish an army of recruits to the ranks of the unemployed during the winter from their avocations of agriculture and fishing. The numbers to be dealt with will probably reach over a quarter of a million in the London districts and millions throughout the United Kingdom. How far works of a local and generally unremunerative character, employing at the outside a few hundred men temporarily on each work for two or three months, will prove adequate for temporary relief, is doubtful; for the permanent remedy of recurrent labour famines they are entirely useless.

If the Hollesley Bay Colony were a permanent settlement of an agricultural and industrial nature destined to become independent, it would be a small beginning of the expansion required for agricultural and public works. The work created on parks, recreation grounds, and in many other municipal departments, cannot be characterised as useful and remunerative. There is nothing expansive for the community in decorative or recreative works, and this type of relief works indicates a deplorable lack of inventive brain power at the disposal of our rulers.

The most useful field for placing surplus labour either temporarily or permanently in England consists in the closer settlement of the land. About half the arable area in England is cretaceous soil which is non-retentive of water. The most copious rainfall, if fitful in occurrence with dry periods intervening, leaves all soil of this nature arid. The chalk downs and limestone sands of the eastern and southern counties are of this nature, and the result of foreign competition in agricultural produce has been to lower prices to an extent that has thrown half the area of England out of tillage. As pasture the downs and undulating chalk lands and magnesian soils fetch at most 10s., and are let as low as 5s. per acre per annum. The argillaceous land under the same commercial conditions, with good artificial

drainage and retentive soil, lets from £3 to £4 per acre per annum, either for tillage or pasture.

It is well known from experience both in England and France that light, non-retentive soils, when irrigated, yield higher returns from tillage or pasture than argillaceous land. The rental of irrigated lands in France has advanced from 5s. to 65s. per acre immediately after irrigation, and rises in course of time to £5 or £6. The highest returns from intensified cultivation are obtained on the Royal Horticultural Society's experimental farm at Weybridge, where irrigation is carried out by sprinklers acting under pressure.

For the purpose of irrigation and closer settlement the Government must acquire the land proposed to be treated. A small Allotments Act would be worse than useless. No private proprietors, large or small, can deal with the public works of pressure irrigation. They involve the most careful and intelligent conservation of public waters, with which private water or land rights are incompatible. Municipalities or any other local bodies could only deal with the work by special Acts of Parliament to reconcile over-lapping rights and interests, and Imperial revenues are required for the use of capital which the already overburdened local rates cannot supply.

A large and increasing return from direct profits off irrigated land will soon be available for the extension of operations. Only for the first two or three years would the national credit be required to commence the work. The pressure system of irrigation relieves the cultivator of any labour whatever in connection with irrigation, it even relieves him of all labour and expenditure for manure or fertilisers for the soil. He can, therefore, cultivate a comparatively large area by his individual efforts. With the assistance of a growing family a husbandman could work forty or fifty acres to a large profit, where without irrigation or with the labour of flooding or furrow irrigation he barely manages ten, with uncertain profits. A thriving, hopeful, and even wealthy peasantry would gradually multiply on the chalk lands, growing wheat and other crops that would

go a great way to replace the present supplies from abroad.

Parliament should at once institute a Board of Irrigation, with capital and powers for the purchase of land at a capitalised value of the last twenty-seven years' rent. Commencing with the present labour famine, the Board would deal with a sufficient area of the chalk lands for the employment of all surplus labour upon irrigation works, and in the following summer provide for the permanent closer settlement of a large agricultural colony. No other outlet for surplus labour can prove so remunerative in itself. No other type of relief work can prove a permanent benefit to the nation, and a permanent source of additional profitable labour. It adds directly to the food supply and the markets of the country within its own borders. It provides a permanent settlement for the natural increase of the people. It adds to the value of national property, and increases the revenue-bearing wealth of the country. It would re-create a stock of sturdy yeomen on English soil; which would prove, as in the past, the most substantial foundation and support of England's power, and an unfailing source of supply for the ranks of the army, navy, and the civil establishments.

The stagnant state of land organisation and political disorganisation is well illustrated by the sale on the 22nd September, 1908, of Broome Park, a domain of 5,400 acres in East Kent, lying some six miles distant from Canterbury. This fine estate of twenty-four farms with mansion house, park, woodlands and coal underlying, sold for £55,000, of which £40,000 could lie at a small rate of interest. The rental received is £4,000 annually, showing a gross return of $7\frac{1}{4}$ per cent. annually. Yet the price realised on a rising market was only £10 per acre, or a capitalised rent at twenty-seven years' purchase of 7s. 6d. per acre.

If this estate, consisting of the finest calcareous soil, the farms on which average 200 acres each, were put on intensified culture under pressure irrigation, 120 farms of forty acres each would give a yield of ten times the present rent and profits, supporting 1,200 people

in much greater individual comfort than any of the present meagre handful.

No government nor "charitable" organisation was represented at the sale on behalf of the unemployed. Charity in the persons of well-meaning but deluded and unpractical clergymen forming the central body has intervened between the Government and its most obvious duties, namely, the preservation of the lives of the people and the improvement of the cultivation of the land.

CHAPTER XIX.

THE LAND LAWS OF ISRAEL.

Agrarian Settlement—Family Tenure of Israel—Non-irrigated Land—Seventh Year Fallow Basis—Exceptions—Penalty of Non-observance—Reward of Observance—Results of Idolatry—Loss of Morale—Loss of Land Laws—Restoration of Liberty—Ceremonial and Moral Laws—Neglect of Land Law by Joshua—The Luck of the Law—Slavery and Growth of Estates—The Monarchy—King David—King Solomon—Separation of Israel—Growth of Cities—Population and Defence—Clerical Reformers—Territorial Armies—Continental Land Laws—Advantages of Reversionary Tenure.

THE land laws of all civilised countries are more or less in the crucible of legislation, in various stages of recasting. Ever since the violent remedies applied by the French Revolution flung the title-deeds of the most aristocratic country in the world upon the fire, agrarianism has been within the range of practical politics in Europe, and in a less degree in America and the Colonies.

The Oriental races, including the Chinese and Japanese, still surviving as nations, and the Israelites and Egyptians of derelict nationalities, based their tenure upon the theory of the agrarian settlement and holding of national land. The revenues of Japanese nobles were derived under the feudal constitution entirely from a tribute in *kokus* of rice. The modern impoverishment of the noble families of Japan arises from the commutation of this tribute at seven years' purchase by the State. The agrarian settlement of the land upon the people remaining unaltered, however, the economic state of the country and its marvellous

capability of defence remains unchanged. Personal feudal tenure of and personal commercial property in land are peculiarly European and naturally tend to vitiate agrarian principles, where not guarded against by clauses prohibiting the individual ownership of unlimited areas of land.

The example given in the Mosaic Law of the permanent establishment of family ownership, by reversionary interest at fifty years making the land inalienable by any individual or generation of the family, is unique as a specimen of land legislation. From the point of view of the welfare and stability of the race or nation, the conservation of family life and ties, a high rate of increase of the nation and uniform prosperity, it was an ideal settlement for the Israelites.

Moses (who is frankly accepted in the premises) was brought up during the first forty years of his life as a prince of the house of Pharaoh, learned in all the learning of the Egyptians. The next forty years saw him leading the simple life in the land of Midian. Eighty years' experience so full and varied of every variety of climate and occupation in Eastern life, on a scholarly foundation, enables him to write to his fellow Israelites in Deut. xi. 10: "For the land, whither thou goest in to possess it, is not as the land of Egypt, from whence ye came out, where thou sowedst thy seed and wateredst it with thy foot as a garden of herbs: But the land, whither ye go to possess it, is a land of hills and valleys and drinketh water of the rain of heaven."

Hence the regulation of "the Sabbath of rest unto the land," consisting of every seventh year leaving the land with fields unsown, vineyards unpruned, and the natural produce of the land unreaped. No red waters of the Nile were available to flood the new land and restore its fertility yearly by their rich sediment. Experience of the uplands of Midian had shown that fertility could only be restored to land watered by occasional rainfall through some process of nature, while lying fallow, analogous to rest. That process is explained in modern days by the investigations of bacteriologists, but in ancient times the results of the

undisturbed process of nature every seventh year were sufficiently well known to guide the learned legislator. The seven years' cycle of cultivation and rest multiplied by seven of these cycles led to the term of fifty years for the reversion of the land to the original family of owners at the jubilee. Sales of land could only be effected for the remainder of a lease expiring at the jubilee. "According to the multitude of years thou shalt increase the price thereof, and according to the fewness of years thou shalt diminish the price of it; for according to the number of the years of the fruits doth he sell unto thee. Ye shall not therefore oppress one another...but thou shalt fear thy God...for I am the Lord your God. Wherefore ye shall do my statutes and keep my judgments and do them...and ye shall dwell in the land in safety."

There were only two exceptions to this law with regard to sale or transfer of land or real estate. The first consisted in the sale of a dwelling house in a walled city. The dwelling house might be redeemed within one year, but after that, if unredeemed, became the absolute property of the purchaser for ever: "it shall not go out in the jubilee." This is evidently an exception made with a view to the national effective defence. The houses in unwallled towns and villages reverted at the jubilee the same as the fields. The second exception consisted of the landed property of the Levites within the suburbs of the six Levitical cities, which "may not be sold, for it is their perpetual possession."

That this reversionary tenure of land and real estate was only considered effective for national defence upon the top of an agrarian settlement giving equality of opportunity to every family in Israel, is evident from the drastic penalties provided specially against any breach of the land laws. Three different and successive stages of penalties are enacted for "not doing all these commandments." The last penalty and evidently the most drastic of all is "I will bring the land into desolation and your enemies which dwell therein shall be astonished at it. And I will scatter you among



the heathen and will draw out a sword after you ; and your land shall be desolate, and your cities waste. Then shall the land enjoy her Sabbaths as long as it lieth desolate and ye be in your enemies' land : even then shall the land rest and enjoy her Sabbaths. As long as it lieth desolate it shall rest, because it did not rest in your Sabbaths when ye dwelt upon it."

The seventh-yearly Sabbath rest of the land could only be practicable in an agrarian settlement of peasant proprietors. Any accumulation of extensive estates by personal proprietors, rack-rented to peasant farmers having no reversionary interest in the soil, would necessitate continuous tillage. Such accumulation was prohibited by the reversionary enactment of the jubilee year, which was actually based upon and made inseparable from the observation of the seventh-yearly Sabbath of the land.

The penalties for non-observance of the laws were amply counterbalanced by the most liberal promise of blessings in kind for their due observance : " If ye walk in my statutes, and keep my commandments and do them ; then I will give you rain in due season, and the land shall yield her increase, and the trees of the field shall yield their fruit. And your thrashing shall reach unto the vintage, and the vintage shall reach unto the sowing time, and ye shall eat your bread to the full, and dwell in your land safely. And I will give peace in the land, and ye shall lie down, and none shall make you afraid ; and I will rid evil beasts out of the land, neither shall the sword go through your land. And ye shall chase your enemies, and they shall fall before you by the sword. And five of you shall chase an hundred, and an hundred of you shall put ten thousand to flight : and your enemies shall fall before you by the sword. For I will have respect unto you, and make you fruitful, and multiply you, and establish my covenant with you."

The blessing is purely agrarian and defensive, and the exact counterpoise of the curse. Each, the blessing or the curse, is the natural and logical result of the observation or of the non-fulfilment of the law.

Supposing the law promulgated in the same chapters against idol worship were strictly observed by the Israelites, and the agrarian and reversionary land law broken, the natural results embodied in the curse would assuredly follow, as a later phase of the history of the Jews proved to the hilt. Doubtless the departure of the Israelites to the worship of the strange gods of the heathen induced the breach of the land laws embodied in the sacred word of the God of Israel. But a spiritual reformation and return to the ceremonial worship of Jehovah did not always produce even-handed justice between man and man, and there is no record of any of the Jewish reformations under the minor prophets extending to the revival of the reversionary land laws, or the redistribution of property on an agrarian basis. Hence the inherent weakness of the small Jewish State against foreign aggression.

In itself the departure of Israel to idolatry and heathen morals, with the loss of faith and trust in the God of Israel who had delivered them out of Egypt and settled them a conquering nation in Canaan, must have produced a ruinous and degrading effect upon their personal *morale*. It is inconceivable that such a disastrous change could be made in a whole nation without the loss of the patriotic feeling, self-respect, and courage due to faith in the highest ideals. Unselfish devotion to duty, the sacrifice of life for the good of their country, is not to be looked for in the renegade or the nation of renegades. This is a phase of natural law in the spiritual world, the curse of foreign conquest due to loss of *morale* and the selfish absence of defensive precautions following as a natural consequence of apostasy.

The evil that produced the failure of the Israelite nation is the same that has produced the ultimate failure of all nations. In the language of Butler—

“We spare the sins we are inclined to

And damn those sins we have no mind to.”

During the darker ages of the Judges, when every man did what was right in his own eyes, and education had at least no national provision outside Levitical circles, the ignorance of the great mass of the people

made them peculiarly liable to corruption by subject heathen races, or prone to idolatry. The full effect of the breach of the land laws in the economic condition of the people and on the fertility of the soil, would take many years, even centuries to realise. But the corruption of their moral character by the assimilation of heathen superstition and the practice of the gross rites in which heathenism found expression was sure to carry with it the breach of the whole law. Subsequent reformatations, ever partial and transitory, could not restore the material and economic losses to the nation. The powerful vested interests created in vast personal landed and real estates would prove an effectual barrier to agrarian reform. The jubilee reversion ceased, and the jubilee itself became a mere empty ecclesiastical ceremonial. Nothing more than the sounding of the trumpet was really practicable. The term "jubilee" itself has been prostituted by all civilised nations and their clergy to the celebration of fiftieth birthdays and other anniversaries for every subject except that of reversion of land to its original family or owners.

Another important function of the jubilee year was the restoration of the poor Israelite, who had fallen into a state of servitude to one of his wealthier brethren, to liberty and the enjoyment of the family property. Slavery was recognised by the law, but the only perpetual bondmen and bondmaids were to be of the "heathen that are round about you." This provision extended even to the stranger or sojourner that waxed rich among the Israelites; he had no privilege to enslave any Israelite, who could only be engaged as a hired servant, with restoration of freedom and property on the proclamation of the jubilee.

The blessing and the curse follow immediately upon the promulgation of these two "weightier matters of the law"—the law against idolatry and the land laws. The voluminous code of ceremonial laws, and the personal moral law enunciated in the ten commandments, with the mass of legal enactments against personal crime, were enforced by penalties of a purely personal nature or condoned by priestly offices and prescribed

sacrifices. For the gigantic national sins of idolatry or the neglect of the restoration of the land to the family, with its seventh yearly rest for fertility, there was no condonation, national extinction and individual destruction must surely follow.

In all the records of the Children of Israel subsequent to their settlement in the land of Canaan, there is no mention of the fulfilment of the land laws. In the valedictory address by Joshua, the able military leader who carried out the agrarian settlement, there is not one word referring to the settlement of the land upon the families or of its restoration in the year of jubilee. "Now therefore put away (said he) the strange gods which are among you," and this is the entire burden of his song. Successive lapses of the people into idolatry incurred swift and terrible punishment at the hands of their enemies, until in each case a leader arose who not only delivered them by military exploits, but also reformed the national religion and restored the administration of the moral law.

The story of the six hundred Danites who raided the Sidonian colony of Laish and annexed the entire ecclesiastical establishment of their kindly host Micah, including his graven image of silver and his Levite chaplain, shows the intimate connection of religion with land settlement and the tendency of the Israelite youths to emigration. The apostasy of the image of silver and the house of gods seems to have been mixed up with the rites and ceremonies of Mosaic law, still highly prized by the Israelites for luck. "Then said Micah, now know I that the Lord will do me good, seeing I have a Levite to my priest." When the Levite deserted for a rise of salary, poor Micah went after the raiders saying: "Ye have taken away my gods which I made, and the priest, and ye are gone away, and what have I more?" The luck went with the raiders who destroyed Laish and built their own city of Dan, where the descendants of the Levite ministered "until the day of the captivity of the land."

Founded upon rapine and maintained by slave labour, the Israelite state contained at its root the seeds of

decay. With abundance of cheap labour on every hand, from the purchase of heathen bondmen who were slaves with their descendants in perpetuity, the temptation to add field to field on every opportunity given by the death or misfortune of their brethren, was ever present and was too great for resistance. The members of landless families disappeared by death or emigration, no public authority existed to proclaim or enforce the jubilee restoration; the priesthood, where it remained loyal to the worship of Jehovah, was not only powerless to enforce the Mosaic land laws, but was evidently oblivious of their existence. Even the prophets, major and minor, who inveighed against the apostasy of the people, confined their diatribes to the sin of idolatry. Religious reform never affected the landed settlement; in the face of the powerful vested interests created by large proprietorship, moral and religious reform has ever been powerless for the restitution of landed property.

The failure of the republic to organise a permanent defensive force upon the territorial basis naturally led to the institution of the monarchy. This was distinctly foreseen and provided for in the Mosaic law which set down rules for the choice and conduct of the king. His Majesty was to be chosen by God to be the Lord's anointed, must not be a foreigner, must not multiply horses nor send his people to Egypt to multiply horses. "Neither should he multiply wives to himself, that his heart turn not away; neither shall he greatly multiply to himself silver and gold." King Solomon's reign was the realisation of all the king should not do.

Centuries of ecclesiastical rule had practically abrogated the land laws, converted the jubilee into the idle ceremonial it has ever since been held, and allowed the defensive forces of the country to become completely disorganised. A still virile people, wearied of priestly platitudes, demanded a secular ruler to organise the national defences. The young man who was taken from the search after his father's asses turned out a failure. The bold outlaw brought up in court and camp was ~~an~~ a great success and is still the traditional

hero of his race. The poet who sang "Oh, how I love Thy law," however he might lapse personally from morality, was not likely to allow the agrarian basis of his territorial forces to remain a dead letter. If ever the jubilee reversion had a chance to see daylight it must have been during the reign of King David. His reign, however, at first over Judah and afterwards for thirty-three years over all Israel, did not exceed in the aggregate forty years. No complete cycle of seven times seven years ever took place under any single ruler in Israel.

The recession of the family estates may have been made during the jubilee year in individual cases or enforced by private suits before the judge or king. The instance of the recession of the family estates of the late King Saul to his grandson Mephibosheth, appears to have been an act of grace on the part of King David to the son of his own friend Jonathan, and it is the solitary instance of reinstatement in Israel on record. The estate must have been extensive, as it took the steward Ziba with his family establishment of fifteen sons and twenty servants to cultivate it for Mephibosheth, who was supported personally as one of the King's sons.

From the accounts of all the glories of Solomon's reign it is clear that great estates and enormous personal wealth had been accumulated in the hands of a powerful landed aristocracy. Solomon himself was the largest proprietor of real estate in the country, probably in the world. His personal wealth was incalculable; the man who could build houses and temples, lay out grounds, furnish palaces, dress and adorn seven hundred wives, royal princesses, must have been unapproachable even by the modern American plutocrat, who is obliged to be satisfied with two tailor-made daughters. Add to these glories of the State, three hundred concubines, innumerable sons and daughters, and all the thousands of attendants on this brilliant Court, and the establishment in which wealth continued to accumulate during a forty years' reign must have far surpassed the utmost extravagance of Louis XIV. of France or any monarch of subsequent ages.

The great majority of the Israelites being drafted by Solomon into civil and military service of the State, the land must have been worked in large estates, by slave labour, in the proprietorship of a comparatively limited number of persons. Taxation was high and direct, for discontent at the close of the reign was so great as to lead to the dismemberment of the nation. The separation of Israel from Judah was the beginning of the end, and must have been led up to by the systematic neglect of the land laws of Moses during all the centuries of the occupation of Canaan.

The great wealth in circulation during the reign of King Solomon was due in some degree to the development of foreign commerce. The tendency of the Israelites to concentrate in towns and to engage in manufactures and commerce was encouraged by the wise monarch, who began business with Hiram, King of Tyre and Sidon, by paying in agricultural produce for cedar wood or the skilled labour of wood-cutting and seamanship, and wound up by offering Hiram twenty cities in the land of Galilee, cities which were not thought much of by the Tyrian king.

Gibbon in his introductory chapters, where he computes the population of the Roman Empire in its palmy days at a hundred and twenty millions, concludes that several of the great cities of Asia Minor, and certainly Antioch and Alexandria, could fairly vie with Rome. Under the reign of the Cæsars the number of populous cities in Asia Minor was computed at five hundred. As in modern England, the divorce of the people from the land in Israel was accompanied by their movement into cities. The organisation of slave labour and the multiplication of horses and other labouring live stock, took the place in Israelite and Roman economy that is taken in modern civilisation by steam power and the factory system.

The capacity of any country for population depends entirely upon the development of civilisation and public works. The enormous population of the Roman Empire was due to the culmination of ancient civilisation under the Cæsars, and the formation of Roman

roads, aqueducts and other irrigation works, with the organisation of intelligent slave labour and the high development of animal labour. The capacity of the civilised empire was still so evident as to attract successive invasions and settlements of outer barbarians from more sparsely populated countries. The preservation of any civilised country depends wholly upon its defensive organisation, which can only be based upon permanent agrarian occupation of the cultivated land.

The weak element in the constitution of the Israelite State was undoubtedly the creation of an ecclesiastical hierarchy by the consecration of the tribe of Levi, and especially the immediate relations of Moses to the service of the Church. During the centuries of ecclesiastical rule immediately following the conquest, the theatrical business of the ceremonial law naturally engrossed the attention of the ruling class. The army and police were non-existent as a standing force, and the influence of the clergy for the support of morals and order was purely superstitious. But the tribe of Levi had no personal or family interest in the Mosaic land laws. Their political power depended wholly upon the adherence of the people to the sacred ritual.

The later prophets who arose from time to time as spirited reformers from the ranks of the people, drew their attention to the prime necessity of the moral law as the rule of personal conduct. The only reference in the prophecies to the observation of the land laws is where the prophet Isaiah pronounces "Woe unto them that join house to house, that lay field to field, till there be no place, that they may be placed alone in the midst of the earth! In mine ears said the Lord of hosts, of a truth many houses shall be desolate, even great and fair, without inhabitant." (Isaiah v. 8.) The remainder of this tirade is devoted to the woes of the personal sins of drunkenness, immorality, and lying; and the sin of the land-grabber is evidently denounced as one leading to personal consequences to the sinner even more than ruin to the nation. The national ruin, "The captivity of the people," follows more immediately

upon the sin of drunkenness, and is pressed home as the result of lying, "putting evil for good and good for evil," "justifying the wicked for reward and taking away the righteousness of the righteous from him."

Clerical and literary reformers of all ages, from the Israelite down through the Jew, the Christian, the Mohammedan, the Roman Catholic, the Protestant, to the clergy of all denominations of modern days, insist upon personal conversion by "a change of heart," for social reform. Social creation as well as social reform has ever been the result of the legislator possessed of military or police power. The original Israelite and Roman Commonwealths were formed upon an agrarian basis by the powerful military leaders and constructive statesmen Moses and Romulus. The laws of the French Republic with its agrarian land settlement, now unhappily disappearing by the operation of unfettered commercialism, were the work of the most powerful and masterful military leader of the last century, Napoleon Buonaparte. The American Republic would not have withstood the baneful influence of commercialism so far as to preserve the empty forms of government by the people, but for the autocratic influence of Washington and his feeble copy Roosevelt. Nowhere does the mere literary or clerical agitator achieve any valuable result in building up the State, its defence against foreign aggression or conquest, or the more uniform distribution of wealth and the conservation of the families. Even the holiness of life enjoined by the clergy assumes an individualistic form and aim which has often made it extremely offensive to more moderate humanity. The first tenet of ecclesiastical holiness has ever been respect for vested interests, however evil their origin.

Under the system of allodial reversionary tenure of the Mosaic land law, every Israelite in the ranks of the territorial army of Israel was a land-owner, fighting not merely for his native country but animated by the abandon of the man fighting for his family heritage. Against the mercenary ranks of the landless proletariat of the heathen, five of these men could well "chase an

hundred." Is there a single land-owner in the ranks of Mr. Haldane's territorial army? Could we even find the £80 standard of the Roman Commonwealth in the Haldane ranks? A property qualification for entrance to the ranks of the British or any other modern army would be laughable. And yet this was the basis of recruiting laid down by the Mosaic law, the law of God. It was the foundation of Roman law, the code which gave birth to all the laws of modern States. Even the barbarous feudal system dated back to a time when land-owners only were privileged to bear arms and fight for their country. Conscription of a landless proletariat or the hiring of mercenary soldiers, when pitted against the voluntary service of the actual owner-cultivators of the soil, has never prevailed. The cry of liberty means nothing without the real ownership of the soil.

The Swiss Cantons are a permanent instance of the successful defence of a small territory by small proprietors. The economic success of the smallest State in Europe, the kingdom of Denmark, is a notable example of the success of land law reform. The half-dozen large proprietors of the whole of the land in that kingdom were bought out at a low rate of compensation fixed by the State at the value the land-owners were to the State, and the land settled on the cultivators in freeholds not exceeding forty acres. One result has been the command of European markets for fifty years by Danish butter. Danish bacon is more plentiful than English in London, and is a standard of quality. A scrap of a country the size of an English county outweighs all England in dairy produce and cured meat, although the climate and soil of Denmark are no better than England; the only difference is the land tenure, even the race of men is the same.

Ireland is supposed to be looking up at last under the Wyndham Land Act. Two errors will be fatal to the permanence of improvement, however; the capital raised by the British taxpayer for purchase does not go into the land in any way, but is carried off by the large foreign proprietor to enrich other countries; and the

redistribution in small freehold farms, as in France, is not permanent, but is liable to fresh accumulation in large estates by commercial law.

The principle of the Mosaic land law is the only sound economic settlement of the land. The tenure of farms must not only be allodial but reversionary in families. If men lived for ever, retaining their fighting and working abilities, there would be no occasion for families or family tenure of land. But men being mortal, the unit that any sane government must deal with is not the individual but the family, of which the individual is only the temporary representative. In the heirship of the king to his throne this principle is admitted, in the heirship of the peasant to his estate it is ignored. With one law of succession for king and peasant the State will be impregnable, and king and peasant alike held in honour.

CHAPTER XX.

THE THEORY OF PUNISHMENT.

Influence of Religions—Natural Law—The Theory of Sin—Neglect of Altruistic Principles—Non-Christianity of Clerical Law—Commercial Theory of Punishment—Its Application to Civil Law—Punishment Degrading—Abatement of Crime by Mercy—Effect of Vindictive Punishment—The Mark of Cain—The Moral of Job—Poetical Justice—War—Public Mercilessness—Mogul Invasion—The Crusades—The Moors in Spain—The Ottoman Empire—Tribute of Children—Mildness of Pure Mohammedanism—Ecclesiastical Terrorism—The Six Fishermen of Islay—Ameliorations of Law—Influence of Punishment in Mediæval Europe—Revolution and Inquisition—Ecclesiasticism.

IN perusing the history of any of the white races, the impression made upon the mind of the reader from the consideration of the rise and decline of civilisation in nations long since extinct as the dodo, is the malign influence of law and religion upon the well-being and character of the people. This is more or less satisfactorily accounted for by ascribing the evil to degraded moral and religious systems, due to the want of enlightenment and the corrupt nature of mankind. In the Conference upon the History of Religions recently held at Oxford, the *raison d'être* of the Conference was the comparison of all religions upon the hypothesis that good was to be found in every one. It is reasonable to suppose that the converse of this hypothesis holds, and that certain malign principles may be traced in all religions, which show their influence in the formation and administration of the laws regulating the conduct of the people affected by them. The presence of the

theory of arbitrary punishment in all religions has generally been placed in the former category, but in considering its influence upon law and the welfare and happiness of nations, it may be found that it is more consistent with logical reasoning and expediency to class this principle of religions in the latter.

Any transgression of the laws of nature results in consequences more or less injurious to the transgressor. If a man transgress the law of gravitation by placing himself outside the parapet of Clifton Suspension Bridge, the penalty is paid with his life, but whatever the moral aspect of his situation may be, his loss of life is not a punishment but a natural consequence. If the man had chosen rather to stay his appetite by robbing a hen-roost, the natural consequences of a physical kind would have been entirely pleasant until the infraction of the law was brought home to him by the police, when punishment of an arbitrary nature would ensue. Punishment for offences under the moral law are considered necessary because the natural consequences of transgression are not looked upon as deterrent. The enjoyment of the pleasures of sin for a season is looked upon by all religions as an essential part of the career of the wicked.

The groundwork of this view of the pleasures of sin lies in the theory of original sin. The creation of man in a state of moral perfection or innocence, and his subsequent fall by the act of a single progenitor; the essential depravity of human nature in consequence of the Fall, the absolute inability of man to keep the moral law, and the certainty of everlasting punishment unless redeemed by the sacrifice of an innocent victim to satisfy divine justice, are theories that pervade all the higher ethical religions, and especially the highest of all. A careful and discriminating study of the sacred writings serves to reconcile the theory of punishment with the laws of nature only by abolishing the grossly material views of an ignorant ecclesiasticism.

The increase and material progress of the white races have been seriously retarded by the influence of the ecclesiastical theory of arbitrary punishment for moral

offences against a dogmatic code, upon civil and criminal law. The amelioration of law and punishment, which has been practically a growth of the last two centuries, has taken place at the instance of modern philosophy and science, in the teeth of constant opposition from an unwilling ecclesiasticism. Religion itself has benefited immensely from the same movement of thought, both in the interpretation of Scripture and the development of altruistic effort.

The ages of faith for nearly two thousand years cultivated the dogma of personal salvation to the exclusion of every other principle or object of the Christian religion. A rare application of altruistic principle, like the work of St. Jean Vincent de Paul, sheds a gleam of light like an electric searchlight through the dark pages of history. The various Orders of ecclesiastics in conventual life were mainly concerned with the growth of personal holiness and the exercises of devotion; and the trifling amount of altruistic effort emanating from the religious houses had for its sole object the improvement and sanctity of their members.

“If thine enemy hunger feed him, if he thirst give him drink” was absolutely ignored during the ages of faith. The records of every siege bear lurid testimony to the ferocious neglect of that altruistic principle. The discovery that the ancient Maoris made this their practice in internecine warfare was the greatest surprise and oddity encountered by the European settlers. To this day the most thoroughly recognised and legitimate weapon in the conduct of warfare is famine. You may as well put your enemy to death by the torture of famine as blow him to pieces with explosives; the fact that thousands of helpless women and children are sufferers makes no difference to the principle. The children must suffer with their fathers; such is the judgment of God. At least, such is the ecclesiastical doctrine based upon the theory of punishment for sin.

The entire structure of criminal law has been based upon this theory of punishment, and each instance of its application when tested by the instructions of Christ

is invariably found to be the opposite of Christlike. The laws are founded on Christian dogma, but Christianity is a very different system from anything contemplated by its founder. The incorporation of the Mosaic law in the sacred books of the Church by the Council of Trent, and with the laws of the Jews their entire theory of punishment, converted Christianity into Judaism with a tincture of additional superstition. The immediate followers of Christ accepted the law of love as the fulfilment of all law. The Christian church reinstated the law of Moses and abolished the law of love.

The theory of punishment is founded upon the hypothesis of hell. If the kingdom of heaven is within you, not an external inheritance but an internal grace, then the converse of the proposition holds in regard to the kingdom of hell, which can in no sense be an external allotment, but must be an internal disgrace. But the creation of an area of fire and brimstone, by the churchmen, for the eternal frizzling of unredeemed sinners, has relieved white men from the fear of a hell within them. The results upon the standard of personal conduct, upon the formation and administration of criminal law, and upon the survival of the white races, have been marked by an era of cruelty and bloodshed, by a reign of human suffering and misery, that make it a wonder that the white races are still left on the point of emerging from its evil influence.

The theory of punishment is a purely commercial dogma. For every pound of sin at 6d. a pound, the sinner must pay 6d. in punishment, and if he has no means must get a friend to pay it for him. In any case the penalty must be paid to satisfy divine justice. Forgiveness of sins is impossible according to the clerical dogma, however much they may brag of it in sermons. Punishment must be borne by somebody, it may be once for all, but the sacred principle of punishment or penalty is fulfilled, and the commercial instincts of the clergy are respected.

Every law passed by the white races has consistently borne a penalty for its infringement. The penalty may

be a money fine which condemns the criminal to suffer from poverty, or it may be that horrible survival of barbarism, imprisonment without the option of a fine. Various degrees of suffering and degradation may be allotted with imprisonment, solitude, hard labour, intimate association with the most degraded souls, prison fare and dress, the lowest menial duties and work. At one time periodical flogging on the bare body was the almost invariable accompaniment of a sentence of imprisonment. Flogging still survives as an institution in the most religious country in the white world.

For religious and political transgressions it is not long since the rack, the boot, hot pincers, the stake, and excommunications were the ordinary penalties. It is not a century since in enlightened England the death penalty was attached to seventy-five different offences.

Although the commercial principle of compensation or retribution for sin is still maintained by the Church, the law has emerged from the commercial theory of retributive justice, and the apologists for punishment on the judicial bench ladle it out as a deterrent and reformer. The first result of the new point of view in administering punishment is the very striking amelioration of sentences within the last century, and especially within the last ten years. This shows the important influence which ethical principles have upon the ordinary business of living. The vindictive principle in punishment, to vindicate justice and avenge the crime, tends to severity, while the deterrent and reforming object mitigates the penalty and tends to the ultimate total abolition of punishment.

All punishment degrades the subject of it, and, therefore, it cannot have any reforming influence whatever. It is only by kindness, and instruction in goodness and usefulness, that any criminal can be reformed; and these modes of treatment are incompatible with punishment. Any element of punishment entering into the most humane treatment of a criminal vitiates the reforming effect of the humanity. If ever a criminal does reform after undergoing sentence, he shows a strength of character far above the level of his

judges. It is a poor apology for vindictive punishment to appeal to a fancied reforming effect.

The penalty attached to every law is supposed to deter the viciously inclined from breaking it. The actual infliction of the penalty upon a criminal convicted of breaking the law is supposed to have a still more deterrent effect. Severity of the penalty and in its enforcement should logically be accompanied by the increase of the deterrent effect. The very reverse is historically true. In the days when sheep-stealing was a capital offence the crime was rife; in modern times, since the penalty has been made comparatively trifling, the crime is unknown. The number of criminals executed by hanging when the calendar had seventy-five capital offences, was appalling; seldom a day passed in London without its fashionable spectacle at Tyburn, and sometimes half-a-dozen suffered simultaneously. Many of the capital offences have actually died out, like sheep-stealing, and the percentage of crime of any kind, notwithstanding vastly improved means of detection, has diminished enormously.

Every judge when he administers a sentence of seven years penal to an unfortunate burglar now feels it one of his chief duties to accompany the sentence with a moral lecture upon the heinous nature of the offence and the urgent necessity for the reform of the criminal. Upon the criminal is placed the burden of reform; the law confines itself to the function of vindicating its outraged majesty by the infliction of a degrading punishment. The already degraded subject is pushed down to a far lower level physically and morally, and is asked to raise himself by his own unassisted efforts to a moral and physical level far above even his judge, to the heroic summit of the forgiveness of all his enemies and doing good to those who have despitely used him. There is little wonder that the hardened criminal sometimes turns upon the judge and tells him to "stow that and put on another couple o' years instead."

The earliest criminal record in the Bible is the story of Cain. The punishment of Cain, although it only consisted in a crop of weeds instead of a good harvest, he

complained of as greater than he could bear. "And the Lord set a mark upon Cain, lest any finding him should kill him." The mark of Cain was distinctly made as a protection, not a punishment. He afterwards founded a thriving agricultural, pastoral and industrial colony; yet the murderous instinct appears to crop up again in his descendants, for Lamech tells his two wives: "I have slain a man to my wounding, and a young man to my hurt." These old patriarchs appear to have had the more sensible notion that their crime was in itself the most awful punishment, and that what they really stood in most need of was deliverance from sin and protection in reform.

Another principle of ecclesiasticism so closely allied to the theory of punishment as to be its invariable accompaniment in militating against the survival of the white races is the theory of moral justice. So thoroughly unpractical is this theory, even to the minds of its votaries, that it is often referred to as poetic justice. This theory lays down the dogma that all misfortune is deserved. The unfortunate wretch whose sons are destroyed by Bedouin raiders, whose goods are dissipated by a cyclone, and whose life is made a burden by the infliction of boils and blains, is lectured for hours by his three comforters, whose logical conclusion is that Job's sins must have been particularly heinous as estimated from the amount of his punishment. The usual panacea of repentance and moral reform is naturally the remedy recommended by the three, and on Job's vindication from moral blame by himself and his Maker, in the course of the little drama, a fourth friend is brought to the rescue by a subsequent scribe, in order to secure the last word on the ecclesiastical side. The practical ending of the play, in the restoration of Job to health and prosperity by the action of the simple life and the generosity of his neighbours, is an every-day occurrence in modern Syria.

The theory of moral justice has come down through Rome and Calvin, to carry the conviction to the white mind that every misfortune is "a jeedgment." It is particularly comforting to the prosperous, conveying

as it does the converse proposition that material prosperity, however undeserved, is at least a sign of grace. Only the unfortunate are unconvinced, and in the increase of the numbers of the unfortunate in the modern scramble for wealth lies the sole danger to the white race.

The detrimental effects of these two immoral ecclesiastical principles, the theory of punishment and its corollary of poetic or moral justice, upon the survival of the white races, are everywhere apparent in history and in modern life. It is only within the last three centuries that the European races have begun to increase in numbers and material civilisation. For over a thousand years prior to these recent times no advance was made upon the aggregate of the population during the Roman Empire. The average of civilisation was far below the standards of ancient Rome and Greece. All learning was conveyed through the media of the Latin and Greek languages, the arts and sciences as well as theology being referred back to authorities who lived and taught two thousand years before.

From the year 743 B.C. down to the year 1871, when peace was arranged between the French and Germans, the white world suffered from constant warfare in some portion of its territories. During the greater part of that time the whole known world had war raging throughout its entire area, every country being more or less involved in religious, racial, or dynastic struggles. It is needless for the purpose of this paper to specify these; they form the entire theme of history. But the ethical principles forming the motives of the various campaigns, and guiding the conduct of warfare, are of the greatest importance to mankind, as they form the key to the universal practice of war and punishment down to recent times, and also to the extraordinary modern revolution in favour of peace.

The universal basis of all religions was the theory of the sinfulness of man and the necessity of expiation by sacrifice, not of oneself, but of someone else. That is, they were all agreed on the theory of punishment, and that theory pervaded all law and civil administration.

In politics all men were equally sinful, and vengeance must of necessity be extracted from neighbouring tribes or nations. But where an innocent lamb might suffice for the expiation of individual sins, if neatly butchered upon an altar in presence of the deity and the congregation, and afterwards served up for the delectation of the priesthood, not even a hecatomb of the lower animals sufficed for the sins of a nation. It is notorious that the individual members of a public meeting, board, committee, parliament, or senate, are as a rule, nice, kindly men. As a corporate body they come to resolutions that would shock the most degraded individual, without a qualm of conscience. In their corporate capacity their solemn duty is to condemn and punish. Hence no war was ever averted by public meetings, and the preaching of peace is an impossibility. Oratory, to be worth a button, must be rousing.

As a rule the greatest devastation was effected by wars waged upon the religious principle of punishment. One singular exception to this rule was the racial invasion of Asia, south and west, and eastern Europe, by the Mogul Tartars in the beginning of the thirteenth century. This invasion of civilised communities by the fiercest horde of barbarians ever conceived of man, commenced with the sacking of Balkh, when a million and a half of the inhabitants of this great city of the oasis were killed in one continuous massacre. No country visited by this horde has ever fully recovered its former prosperity. The great deserts of western Asia, the Thur in India, the Persian deserts, the immense desert through which the Euphrates and Tigris rivers wend their useless and insalubrious way, the deserts of Syria, and the wastes of South Russia, owe their desolation to this monstrous raid. The race by which it was perpetrated has utterly disappeared off the earth, leaving hardly a trace in the strain of their nominal descendants. These Tartars appear to have been deists of a faith that sat lightly on their consciences. They were too indifferent as to religion to make converts even by the sword. Slaughter was purely a business transaction, for the sake of loot first and the conversion of agricultural into

pasture land last. The failure of the latter part of the experiment cost them the lives of their own race as well as the lives of the unfortunate communities they had dispossessed. The pithy saying of the prophet, "Vengeance is mine, I will repay, saith the Lord," is aptly illustrated by this picture of the Great Mogul sawing off the plank-end on which he stood. But that is by no means what the Christian, Roman Catholic or Calvinist understood by the sacred text. The vengeance that was the Lord's must be wreaked by the hand of His blessed Church, or it appeared to lack the efficacy of punishment. The whole story of the Crusades, first directed by the Church towards delivery of the Holy Sepulchre from the domination of the Mohammedan, and afterwards diverted to the extirpation of the unhappy Albigensian heretics, against the enemies of the Pope's temporal power in Sicily, and finally for the conversion or death of the heathen of northern Europe and the Americas. One long crusade of five hundred years consisted of the perpetual fighting of the Christians in Spain to win back the land, step by step, from the Saracens and Moors. Curiously, the damage to the country due to these wars was in no case perpetrated by the alleged aliens, the Moors. The permanent waste of the large province of Estramadura was the deliberately planned work of the holy Saint Ferdinand, to interpose the waste lands as a barrier between the Spanish possessions and the rich kingdom of Granada, the last of the Moorish possessions.

No better illustration of the ethical errors of the intolerant fanaticism of Christianity presents itself than the sanguinary dispossession of the Moorish Berbers from their Iberian home. They were a race derived from the purest white stock of the Aboriginal whites in the Atlas Mountains, the most industrious and scientific manhood of mediæval times, the inventors of Algebra and of the most advanced system of irrigation. The men were handsome, the women beautiful, as shown by the trace of Moorish blood still existing in the modern Spaniards; and intermixture to a much greater extent, had such been permitted by the fanatical priesthood in

the way of legitimate marriage, would have produced a race of staying power that must have kept the Iberian Peninsula foremost in the struggle of colonising nations. Instead of such a glorious development of humanity, the fanatical idiots deliberately chose the demoniacal course of exterminating, by the ruthless slaughter of men, women, and children, the Moorish race in Spain.

A much more rational plan of maintaining political power in a foreign conquered country than the stupid and ferocious cruelty of the Catholics was evidenced in the rise of the Ottoman Turks in Europe. The original Turkish invaders of Asia Minor, the Seljukian Turks, had been involved in the general and widespread ruin of the settled nations by the Mogul Tartars under the brute Jenghiz Khan. Within thirty-four years of the Jenghiz raid the Ottoman Turks began their brilliant march upon the choicest territories of eastern Europe, and within two centuries of gradual advance they were seated for all time in Constantinople and modern Turkey-in-Europe. A comparatively insignificant race in numbers, the Ottoman Turks maintained their supremacy by military power recruited from the families of the races they had subjugated. So far from the extermination of innocent and helpless women and children of a different race being part of their creed, they encouraged the women in happy domestic life, and reared all children with the utmost care to build up their army and nation. The success of their policy was equal to its humanity. The Turkish Empire came to the zenith of its power in the sixteenth century, towards the close of which the Sultans became corrupted in moral principle by contact with Christianity. During the seventeenth century it is said : “ One great reason for the decline of the Ottoman power was that the tribute of children was no longer regularly levied on the subject nations. The Janissaries had become a kind of hereditary caste, and their old spirit was quite gone. In former times all the best servants of the Sultans, both in war and peace, had come from among the tribute children. Now that the tribute was no longer levied, the Sultans had no longer the same succession of able and faithful servants, and the subject

nations were no longer deprived of the men who were most fitted to be their leaders."

The most serious blow to the Turkish power in Europe was caused by the Bulgarian massacres of women and children, which originated primarily from the expulsion by the Russian Government of the degenerate Caucasians they had conquered in the Caucasus, who were taken in by the Porte and settled in Bulgaria. Brutalised by the sale for many generations of their finest women to degenerate Turks, these Circassians had no respect for womanhood or childhood. This, coupled with unreasoning hatred against the Slavonic race which had expelled them from their ancestral mountain home, fired them to destroy the family life of the enemies among whom they had been settled. A greater piece of folly than this alien settlement was never perpetrated by white government. The Christian theory of punishment at once asserted its sway, and the entire Slavonic race swept down like a flood upon the unfortunate Turk, deluged the land in blood and tears, and came little short of the final ruin of the Ottoman Empire.

Punishment has since held full sway in the Ottoman Empire until the present year. The Sultan and his Camarilla of irresponsible Ministers constantly invaded the sanctity of family life, until on the peaceful revolution effected by the "Young Turkey" party there was hardly a family but had members restored from exile or imprisonment. The theory of punishment is no more essential to the teaching of Mahomet than to the real tenets of the founder of Christianity. But Christian dogma is more ancient and more brutalised by the penal tenets of Mosaic law than the religion of Mahomet. The Koran lays far more stress upon the joys of paradise than on the horrors of Gehenna. The Christian churches deal out fire and brimstone much more freely than brotherly love and future joy.

In a sermon preached by the Rev. George Smith at Aberdeen, which was announced in the bills as "The Future Life," that able and eloquent preacher discoursed for twenty-nine minutes on the pains of hell. The lurid picture drawn in the sermon of the sufferings of the

damned was rousing and impressive, leading to the involuntary expectation of a great treat in store in the picture of the joys of heaven, which such an eloquent man must surely be able to draw for the comfort of his congregation. In one minute this side of his subject was disposed of. All he said, but said very impressively, was, "Eye hath not seen nor ear heard, neither hath entered into the heart of man to conceive, the things which God hath prepared for them that love Him."

The entire ecclesiastical system is a method of terrorism. Although its application is purely theoretical in the pulpit, in practical every-day life the theory of punishment taught by the clergy bears terrible and disastrous fruits. For two thousand years the whole code of criminal law has been corrupted and brutalised, and its administration has proved the chief source of degradation in every white man's country. No man ever comes out of prison a reformed and lovable character. Sentences of imprisonment are passed with the most fatal facility by judges taking the high ground of moral superiority based upon ecclesiastical teaching, and no sentences are so severe as those passed by the clergy sitting as Justices of the Peace in rural district courts. Petty offences against the law of property, such as stealing a turnip of the saleable value of a halfpenny from a field to stay the pangs of hunger of an underpaid labourer's family, means for a child a sentence of six weeks' imprisonment by the parson whose prime duty was to feed the hungry. Men struggling with unemployment to maintain their families on the chance earnings of the streets are thrown into prison for non-payment of small debts. Only last year six men of Islay, whose earnings depended upon the speculative industry of sea-fishing, were marched off to prison in Campbeltown at the Mull of Kintyre, the county town of Argyllshire, for failing to pay the county rates. They were released on the intercession of a local gentleman, who paid a small instalment for each, and sent back to work out in their precarious calling the balance of arrears to be paid by weekly instalments. One of the sufferers, John Campbell, was never afterwards fit to go to sea, being

permanently crippled by rheumatism contracted in gaol.

The sole lesson to be learned from the past is that, as punishment has been lessened, crime has invariably diminished. Keeping this fact in view, consideration should be confined to the present state of criminal law and its effects upon society. Many of the more ferocious penal laws of our ancestors remain unrepealed upon the Statute books, but even the most vitiated legal mind among modern judges cannot bring his legal acumen to justify their application. Children are to be tried in separate juvenile courts, and punishment for their delinquencies abolished in favour of discipline. The Home Secretary hastens to assure a shocked public that a poor woman, driven by misery to destroy her own infant, will have the barbaric death sentence replaced by a free pardon, with the necessary assistance from the State to lead the life of a human being in future. The punishment formerly meted out by the schoolmaster for lessons unsaid is transmuted into a free breakfast at school to the children whose lips were sealed by hunger. The deceased wife's sister and her children are no longer penalised with the brand of illegitimacy. Even the wretched state of life-long suffering entailed upon poor women by judicial separation from their husbands is the subject of a powerful appeal by the judges for reform giving more liberty of divorce. The last two measures, however, are the special abhorrence of the clergy, who refuse to marry either deceased wife's sisters or divorcees by the rites of the Church. The relief of children and women from punishment is no part of the Church's programme even yet. It is difficult for the modern layman to comprehend this extraordinary mental immobility of the clergy. He forgets that the entire fabric of ecclesiasticism is built upon the theory of punishment founded on the dogma of original sin and its corollary, hell.

The influence of the ecclesiastical theory of punishment upon the depopulation of Europe was most marked in mediæval times. Not only constant religious and dynastic wars, undertaken for the punishment, by

extirpation, of heretics, the promotion of the interests of one or two great families, and the spread of the power of the Church; but also a peculiarly destructive penal code bearing most heavily upon the lives of women and children, ecclesiastical laws of celibacy for men and women weeding out the best stocks on the continent, and the condemnation of the natural functions of the sexes as deadly sin; all these principles of punishment regulating the laws and lives of the white races for many centuries kept Europe sparsely inhabited, and led the few and enfeebled inhabitants lives of misery. Latterly, in the most enlightened countries, joy was looked upon as the criminal indulgence of sinners. To be esteemed passably good a man must wear a gloomy countenance and present a doleful aspect to spectators. Of course, reactions against this most pernicious form of tyranny were frequent, but the constant pressure of the Church never allowed healthful reaction to make much headway. Backed as it has always been by the growth of class poverty, due to a false economic system, the powers of the clergy to enforce their dogmas of the necessity of temporal and eternal punishment were easily enforced by all the terrors of the law. Revolutionists, trained in the most cruel dogma of the Church, flung off her teaching only to retain her theory of punishment, intensified to a degree which shocked even the feeble germs of humanity of their day.

The Inquisition was the only active medium of physical punishment handled by ecclesiastics themselves. It proved for some centuries a very efficient weapon for the destruction of humanity, but the cunning brains of the clergy found the more indirect execution of criminal law even more effective in providing for the ruin and destruction of the white races who became their prey.

The rapid evolution of reform in every department of the life of modern times is wholly due to the freedom of modern science and philosophy from ecclesiastical dogma. The theory of punishment has no place in Baconian philosophy, and its legislative and legal retention in a modified form are due to the lingering trammels of ecclesiastical subservience in the ruling classes. These

pious gentlemen find life so pleasant that they cannot bring themselves to lessen the hope held out by clerical dogma of its going on to all eternity. This is the bribe paid by the ecclesiastic for the continued maintenance of costly ecclesiastical establishments from which the time-honoured theory of punishment is still held over the heads of suffering humanity. What would heaven be worth without a hell to escape from. The joys of the just, although they are only justified by credulity, would be inappreciable without the sorrows and suffering of the damned, although they are damned merely for incredulity.

APPENDIX A

BOARD OF AGRICULTURE AND
FISHERIES.

THE ADMINISTRATION OF THE SMALL HOLDINGS
ACTS.

A "small holding" for the purposes of the small Holdings Acts means an agricultural holding which is more than one acre and not more than fifty acres in extent. Its area may, however, exceed fifty acres, if its annual value for the purposes of income tax is not more than fifty pounds.

The local authorities directly responsible for the provision of small holdings under the Acts are the County Councils and the Councils of County Boroughs.

*Appointment of Small Holdings and Allotments
Committee.*

The first step to be taken by a Council to bring the Act into operation is the appointment of a Small Holdings and Allotments Committee, which may include non-members of the Council.

The Council may delegate all their powers under the Acts to the Committee, except the power of raising a rate or of borrowing money, and, with a view to avoiding unnecessary delay, it is desirable that full powers should be delegated, and that the Committee should be authorised to conduct all correspondence relating to the Acts and to carry out inquiries, &c., without having to refer each point to the Council.

In the case of a County Borough, the members of the Committee might conveniently be appointed allotment managers under the Allotments Acts.

Applications.

After Councils have made known the provisions of the Acts throughout the county or borough by advertisement, &c., applications should be invited, and forms of application supplied, which should contain inquiries as to the experience of the applicant, and whether he or she has sufficient capital to work the holding with reasonable prospect of success.

Applicants should also be asked to state in the form of application how much land they desire, and whether arable or grass, whether they desire to purchase or hire the land, whether they require a house or buildings, whether they desire any particular land, if it can be obtained for them, and whether they are occupying any land at the time of making application.

Rules.

Rules for the sale and letting of small holdings are required to be made by Councils. These rules must be confirmed by the Board of Agriculture and Fisheries, who have issued model rules for the information and guidance of Councils.

Inquiries as to Suitability of Applicants.

On the receipt of applications for land a Council should satisfy themselves as to the qualifications and suitability of the applicants by means of inquiries at which the latter can be interviewed personally. For this purpose the best course will be to appoint sub-committees, consisting partly of members of the Small Holdings Committee, and partly of members of the minor local authorities and other suitable persons, for each parish or other convenient area from which applications have been received.

In dealing with the applications it will be necessary to consider the provisions contained in the Act of 1892, which require that "applicants must themselves cultivate the holdings." It seems clear that these provisions are

intended to be read with sec. 7 of the Act of 1892, which requires the Council to make rules guarding against any small holding being held by a person who is unable to cultivate it properly, the object being to secure that the small holder shall personally apply the requisite skill and ability to the cultivation of the holding.

The words should not be interpreted in a narrow sense, and persons who require land as an adjunct to their present occupations should not be refused on that account, nor should their applications be given a secondary place as compared with those of men who propose to devote their whole time to their holdings. In this connection it should be remembered that sec. 20 of the Act of 1892 defines "cultivation" to include the use of land for any purpose of husbandry, inclusive of the keeping or breeding of live stock, poultry, or bees, and the growth of fruit, vegetables, and the like. The provision that the small holders must themselves cultivate their holdings does not exclude the use of hired labour to assist them in the cultivation.

Appointment of a Special Officer.

If the work of the sub-committees is to be carried out properly, it will probably be found necessary for the Council to appoint a special officer to act as their land or estate agent, and to deal with the business arising under the Acts. Such an officer could act as clerk to the Small Holdings and Allotments Committee, and he might also be responsible for attending and reporting the meetings of the local sub-committees, and for making such inquiries as the Committee might direct into the suitability of the applicants for land and the best means of meeting their demands. In addition, he could undertake the management and supervision of the small holdings, when established, and the collection of the rents, and could act generally as the estate agent of the Council for all the land acquired by them under the Acts.

Acquisition of Land by Agreement.

When the Council are satisfied that there are suitable applicants, it will be necessary for them to consider how they should proceed to obtain the land to satisfy their demands. For this purpose a look-out should be kept for any forthcoming sales of property in the county. It may be desirable to ascertain from the local landowners whether they are willing to offer to the Council any farms which may become vacant, and inquiry might also be made as to the possibility of purchasing or hiring some of the glebe lands attached to benefices. Land may be acquired either within or without the county. In considering the question of acquiring any particular land, the Council will have to decide whether the land should be purchased or hired, and, in cases where any considerable amount will have to be spent on equipment, there are obvious advantages in the purchase rather than the hiring of land, in order to avoid the difficult question of compensation for improvements, as between the Council and the landlord, at the termination of a lease which may not be renewed, and the necessity of imposing high rents to cover the replacement, in a comparatively short period, of money spent on improvements.

It will also be necessary for the Council to decide whether they propose to acquire the land under a scheme or not. It is open to a Council to proceed without a scheme, but if this course is adopted no claim can be made by the Council for any repayment out of the Small Holdings Account towards any loss which may be incurred. If it is decided to proceed under a scheme a contract for the purchase or hiring of the land, conditional if possible on the approval of the scheme, should be entered into, and a report should be prepared by the Small Holdings Committee containing the following information :—

- (1) The situation and quantity of the land to be acquired and the proposed purchase price or rent.

- (2) The maximum amount to be expended on adaptation and equipment, with particulars of the work proposed, but not, in the first instance, plans or specifications.
- (3) The manner in which the land is proposed to be sub-divided.
- (4) The purchase price or rent proposed to be charged for each holding.

The report should also state whether the Council are satisfied that there are suitable applicants ready to take the land at a sufficient price or rent to recoup the Council for the outlay proposed, and an Ordnance Map, or a tracing therefrom, should be prepared showing the holdings into which it is proposed to divide the land.

The report and plan should then be sent to the Board of Agriculture and Fisheries for their provisional sanction, and when this has been given the proposed scheme must be advertised in accordance with sec. 4 of the Act of 1907. For this purpose it will be sufficient if a notice in the following form is inserted in one or more of the local newspapers circulating in the county or borough:—

Small Holdings Acts, 1892 and 1907.

Notice is hereby given that a draft scheme has been prepared by the Council for the acquisition ^{on lease} _{by purchase} of for small holdings. Information as to the contents of the draft scheme can be obtained from the Clerk of the Council. Any objection to the draft scheme is to be sent in writing to the Board of Agriculture and Fisheries within one week from the date of the publication of this Notice.

If no objections are received the Board will then proceed to confirm the scheme, and the Council will be able to complete the contract.

If it is desired to purchase land at a sale by auction the Council should obtain a report and valuation of the



land, a copy of which should be sent to the Board. If the report and valuation prove satisfactory, the Council might then instruct an agent to bid up to the amount of the valuation. If the land is acquired a scheme can then be prepared and submitted to the Board, who have stated that, in cases where it has not been possible to obtain their sanction before the completion of the contract, they will be ready to consider a subsequent application for their approval to the scheme.

Borrowing Powers.

A County Council or the Council of a County Borough may borrow money for the purposes of the Small Holdings Acts from the Public Works Loan Commissioners, with the sanction of the Local Government Board, at a uniform rate of $3\frac{1}{2}$ per cent., irrespective of the term of the loan. In the case of loans for the purchase of land, the term of the loan may be as long as 80 years and the Local Government Board have stated that, as a general rule, they will be prepared to sanction the full term of 80 years. The maximum term for loans for adaptation, or for the purpose of making advances to sitting tenants under sec. 17 of the Act of 1892 (*see p. 8*), or for any other purpose, except the purchase of land, is 50 years.

Repayment of Preliminary Expenses of Acquiring Land.

Sec. 17 of the Act of 1907 authorises the Board, subject to regulations to be made with the approval of the Treasury, to pay out of the Small Holdings Account the whole or any part of the expenses incurred by a Council in proceedings in relation to the acquisition of land. Regulations under this section have been issued, by which the Board undertake to pay the whole of the expenses which have been necessarily or reasonably so incurred, and the Board have stated that though they cannot indicate precisely what particular items of

expense will be subject to repayment, the following would seem to be the most important :—

- (1) Cost of report and valuation in respect of any land, the acquisition of which is under consideration by the Council (including cases where the land is not eventually acquired).
- (2) Cost of proceedings for obtaining a compulsory order.
- (3) Arbitration expenses in cases of compulsory purchase.
- (4) Valuation expenses in cases of compulsory hiring.
- (5) Conveyancing expenses.
- (6) Cost of registration of title.

If an officer of the Council is employed on any work connected with the acquisition of land for small holdings, it will be desirable that he should be paid for such work by fees or special allowance, in order to facilitate the adjustments of claims for repayment by the Board.

Losses under a Scheme.

By sec. 5 (4) of the Act of 1907, the Board are empowered to pay, with the sanction of the Treasury, the whole or part of any loss which may result from the carrying out of a scheme, and a Treasury Minute, dated 31st December, 1907, has been issued, which authorises the payment of one-half of any irrecoverable loss which results from the working of a scheme initiated by the local authority and approved by the Board.

Compulsory Acquisition of Land.

Extensive powers of leasing land to Councils for small holdings and allotments are given by these Acts to incumbents and other limited owners, but cases will occur in which Councils will be unable to obtain suitable land for small holdings by agreement, and they must then consider whether they should not apply to the Board for an Order authorising them to acquire land

compulsorily. If they decide to do so they must select the land which they propose to acquire, and, in this connection, it must be remembered that no holding of 50 acres or less, no land which forms part of a park, garden, or pleasure ground or of the home farm of a mansion house, or which is otherwise required for the amenity or convenience of a dwelling-house, and no land which has been acquired by a local authority or statutory corporation or company for a public undertaking, can be compulsorily acquired. In addition the Council should not lose sight of the fact that they must, so far as practicable, avoid taking an undue or inconvenient quantity of land from any one owner or tenant, and that if it is proposed to acquire part only of a holding, a claim for compensation for severance may arise, which will have the effect of increasing the price or rent to be paid for the portion taken.

Having decided upon the land to be acquired, the Council must prepare an Order in the form prescribed by the Board, advertise it in the local press and give notice to the Board and to each owner, lessee, and occupier of the land proposed to be acquired. Objections, if any, to the Order must be sent to the Board within a month from the receipt of the notice. If no objections are received the Board will then confirm the Order forthwith, but if notice has been given of objections the Board will order a local inquiry, at which the Council and all persons interested in the land may appear and be heard. The Board, after considering the report of the person holding the inquiry, will then decide whether the Order should be confirmed or not, and whether with or without modifications. When confirmed, the Order becomes valid and has the effect of an Act of Parliament.

The Order having been made, the amount of compensation to the various parties interested in the land remains to be settled. If no agreement can be arrived at as to the amount of compensation, the sum will be settled in the case of purchase by a single arbitrator, and in the case of hiring by a valuer, appointed in either case by the Board,

The possession of land which has been hired compulsorily may be resumed by the landlord on twelve months' notice if he can prove to the satisfaction of the Board that it is required to be used for building, mining, or other industrial purposes; and it is accordingly provided in the Act that the valuer in assessing the rent to be paid by a Council for land which is hired compulsorily shall not take into account any prospective value which might attach to the land if used for any purpose for which the landlord can resume possession. The effect of this provision is that land which has a prospective building value, but which is not yet ripe for that purpose, can in the meantime be hired by a Council at an agricultural rent.

Regulations as to the compulsory purchase and hiring of land, containing the prescribed forms for compulsory Orders, have been issued by the Board, and can be obtained either directly, or through any bookseller, from Messrs. Wyman & Sons, Ltd., Fetter Lane, London, E.C., price 1d. per copy, or post free 1½d.

Adaptation and Equipment.

When land has been acquired by a Council they may adapt it for small holdings by dividing and fencing it, making roads, providing water supply, drainage, &c., and they may also, as part of the agreement for sale or letting, erect houses and buildings, or adapt existing houses or buildings. Not more than one house may be erected for occupation with any one holding. Money may be borrowed for these purposes from the Public Works Loan Commissioners at 3½ per cent. for such term, not exceeding 50 years, as may be sanctioned by the Local Government Board.

Sale or Letting of Small Holdings.

Land can either be let by a Council, or, in the case of land which has been purchased by agreement, it may, if the Council think fit, be sold on the terms referred to below. The rent of land which is let must be fixed at a

sum sufficient to recoup the Council for the whole of their expenses in acquiring and adapting the land, together with a sufficient margin to cover tithe, repairs, management, and contingencies. Whether the sinking fund charges for the replacement of principal must be included in the rents of the holdings is a question upon which opinions differ, and Councils are using their own discretion in the matter. As a general rule it will be desirable that rates and taxes should be paid by the tenants themselves.

Terms of Sale of Small Holdings.

Land which has been purchased by agreement may be sold by a Council on the following terms :—

- (I.) At least one-fifth of the agreed purchase money must be paid down upon completion of the purchase.
- (II.) A sum not exceeding one-fourth of the purchase money may, if the Council think fit, remain a perpetual charge upon the holding, *i.e.*, the purchaser will pay an annual sum representing the interest on that portion of the purchase money.
- (III.) The balance of the purchase money, with interest, must be paid to the Council in half-yearly instalments spread over a period not exceeding 50 years. In certain cases the repayment of instalments may be postponed for five years.

Every small holding sold by a Council will remain subject to certain conditions for 20 years from the date of the sale, and thereafter so long as any part of the purchase money remains unpaid. The main object of the conditions is to ensure that the holding will not be diverted from the purpose of agriculture. Upon a breach of the conditions the Council may resume possession of the holding.

Power to Let to Associations.

With the consent of the Board a Council may let land for small holdings to associations formed for the purpose of creating or promoting the creation of small holdings, and so constituted that the division of profits among the members of the association is prohibited or restricted. The Board have drawn up rules which they will require every such association to adopt, if it desires to rent land from a County Council for small holdings, and copies of these rules and other information as to the formation of associations may be obtained from the Secretary of the Agricultural Organisation Society, Dacre House, Dacre Street, London, S.W.

There are obvious advantages from the point of view of the County Council in letting land to such associations or societies, who can undertake the whole responsibility of dividing the land, selecting the tenants, managing the holdings and collecting the rents, while the tenants will be in a very favourable position for the organisation of a system of co-operative purchase of their requirements and disposal of their produce,

Assistance to Co-operative Societies and Credit Banks.

County Councils are empowered by sec. 39 of the Act of 1907, to encourage and assist credit banks and other co-operative societies which have as their object, or one of their objects, the provision or the profitable working of small holdings or allotments, and they may, with the sanction of the Local Government Board, give grants, and guarantee or make advances to such societies. They may also appoint a central co-operative society, such as the Agricultural Organisation Society, to be their agents for the purpose of promoting co-operation among the small holders in their county, and may make it the medium through which any financial assistance they propose to give should be dispensed to the local societies.

Loans to Sitting Tenants.

If the tenant of a small holding agrees with his landlord for the purchase of the holding, the County Council may, if they are satisfied that the title to the holding is good, that the sale is made in good faith and that the price is reasonable, advance to the tenant an amount not exceeding four-fifths of the purchase money. The Tenant then becomes subject to the same conditions as are imposed in the case of a small holding provided and sold by the Council, and the terms as to repayment of the advance are the same as in that case.

4, Whitehall Place, London, S.W.,

September, 1908.

APPENDIX B.

DISTRAINT FOR RATES.

A CONSIDERABLE profit is realised at present by municipal authorities in London by their method of levying distress upon householders who are a few days behind in payment of rates. In each of the parishes a summons is sent to each householder then liable, for which a charge of 6d. is added to the amount of the rates. On the day fixed for hearing, always less than a week after service of the writ, a queue of defendants is formed at the Town Hall, estimated at 3,000 in each parish, quarterly. A row of guardians, in their capacity of J.P., stamps each writ with a rubber stamp to authorise a week's extension of time to pay, at the end of which time the constable calls with his man to seize the household furniture. Additional charges now accrue of 1s. for payment to constable, 2s. for levy, and 2s. 6d. per day for each day in possession.

A printed "Authority to Re-enter" is immediately produced by the man in possession, which is signed by the defendant, and the same man accompanies the constable to all the other defendants in the neighbourhood, who are glad to sign similar "authorities" to be rid of his actual presence in the dwelling. The "man in possession" is paid by the guardians 4s. 6d. per day. The expenses charged per defendant amount on an average of three days' possession to 11s., or 18 per cent. addition to the average amount of rates at £3 per quarter. The man takes possession of at least 20 houses each day by means of the "Authority to Re-enter," leaving a balance to the parish of £10 6s. 6d. profit upon 20 distraints. It is calculated that each council in London realises from this source an average of £2,000 annually, forming a convenient fund for meeting the surcharges developed in recent years by over-zealous auditors of Borough accounts.

The moral aspect of these transactions may not be such as to meet with universal approval however, the fund being extracted from the lower middle class of industrial and trading workers, with large families and heavy responsibilities depending upon an over-burdened and over-tasked householder. The method employed for extracting the money is the most cruel form of raiding upon families, and naturally leads to the development of crime on the part of the collectors. Illegal distraint by forcible entry, and falsification of registers by the addition of the names of all the legal owners of the furniture as lessees of the house, are offences regularly perpetrated by collectors of rates. The universal experience of nations is that unjust and oppressive laws invariably induce criminality in the administrators or officials engaged on their enforcement.

The fact that the majority of the householders subjected to distraint for rates are women, who on account of sex are disqualified from voting for legislators, although the voting lists are made up from the register of rate-payers, may have some bearing upon the continuation of this abuse.

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